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Advocacy Group

June 15, 2004

Mr. Casey C. Grant, Secretary
Standards Council
National Fire Protection Association
1 Batterymarch Park
Quincy, MA 02269-9101

Dear Mr. Grant:

On behalf of the National Association of Home Builders I respectfully submit the following as an appeal of action taken to accept Comment 2-91 at the NFPA Association Technical Meeting (ATM) on May 26, 2004. However, given this appeal will not be necessary should that action be reversed by the respective CMP and TCC as a result of their still pending ballots on that action, we are reserving the submission of full substantiation in support of our appeal. Additional substantiation will be submitted if the pending ballots affirm the ATM action.

Action being appealed:

Action at the May 26, 2004 Association Technical Meeting to Accept Comment 2-91, Log #510, NEC-P02 amending Proposal 2-140, Log #1623, NEC-P02

Grounds for appeal:

Substantive: The decision made by eligible voters on this motion was based on testimony delivered in favor of Accept(ing) 2-91 that is largely unsubstantiated or incorrect. (Testimony as noted on pages 48-52 of the ATM transcript)

By way of specific example, testimony that "expanding AFCI's at this time is practical," (page 48, ATM transcript) is unsubstantiated by appropriate technical data and, testimony that "the Consumer Product Safety Commission provided adequate data to support this motion to expand the use of arc circuit protection to all living areas," (page 49, ATM transcript) is incorrect.

Expanding the requirement for AFCI's cannot be substantiated and is not practical at this time. Incidents and the impact of electrical arcing that result in ignition of a residential structure, and that AFCI's are intended to uniquely prevent, has yet to be adequately and irrefutably documented by any reliable fire incident data source, including NFIRS and NFPA. While these sources produce commendable data, it often too general and broad in scope (as with respect to arc faulting) and therefore limits what can be reliably concluded on many specific issues, such as determining the types of arc faults that AFCI's uniquely protect against in currently approved wiring systems. Most if not all of the arcing data that has been used as substantiation for any AFCI requirement is derived from data that utilizes the term "arcing" as a general descriptor of electrical problems. It does not reliably provide for describing the actual electrical problem that has been identified as the cause of a particular fire incident and furthermore, in no way indicates whether that incident could have been prevented by a properly functioning AFCI.

For example, under the NFIRS data collection process as it relates to this issue, the section entitled "Forms of Heat Ignition" (Pages I69 and I70 of Section III of the NFIRS-1 Incident Form) can automatically lead fire investigations to attribute the most likely cause of an electrical distribution fire to arcing without providing for additional descriptive detail. This brings into question the actual role and occurrence of arc faulting as the cause of residential electrical fires, especially arcing that would only be detected by a properly functioning AFCI.

Furthermore, since AFCI's have been first proposed, relevant, more in-depth electrical fire research has been ignored. For example, the Consumer Products Safety Commission (CPSC) report entitled "Residential Electrical Distribution System Fires" which "presents an evaluation of the scope and characteristics of the fire problem associated with residential electrical distribution systems" concludes, "The majority of the fires in this group probably would have been prevented if the installations and modifications had conformed to the current National Electrical Code." This report was published in 1987. Has the NEC has regressed since then? Absolutely not, and consideration of that report, the improvements to the NEC since that time and the resulting further reduction in residential fires is just one of the many factors that have been ignored since requirements for AFCI's were first proposed. Many of the decisions with respect to AFCI's have been based on information that was not intended to substantiate specific code requirements.

With respect to testimony that "Going back to Proposal 2-140 the Consumer Product Safety Commission provided adequate data to support this motion to expand the use of arc circuit protection to all living areas." That statement is simply untrue. Regardless of whether the individual testifying unintentionally erred in their reference, there is no record that the noted data was ever provided, considered by the TC or was otherwise a factor in decisions related to 2-140. That testimony was

incorrect, but clearly intended to influence the ATM vote and therefore undermines the legitimacy of that vote.

Equally compelling support of this appeal and verification of our own substantiation is the testimony provided by TC members, including the chairman himself. Testimony by one TC member included "My concern on the AFCI product is that the test – or the data the we've been given does not distinguish between failures that are arcing versus burning. And it is my feeling that the test data is – does not prove conclusively that the arc-fault circuit technology can detect and prevent the fires the have been – that we've been led to believe that it will detect. It's quite an expensive device (compared) if it is not....." Further testimony noting "But as the Chairman said, the panel went through some long deliberations to arrive where they were," is an undisputable declaration that the CMP-2 thoroughly considered this comment and acted on it appropriately.

Finally, with respect to substantive issues on the whole, we urge the Standards Council to thoroughly review the full record of the CMP-2 actions and their statements for those actions. Again, that record will show that the CMP-2 thoroughly considered this comment and acted on it appropriately.

Suitability: The comment results in an unsuitable amendment. The action to accept Comment 2-91 results in an amendment to NEC 210.12 (B) that is confusing, counter to the intent of the proponent (regardless of whether one supports the position or not) and provides a clear example of the poor, inappropriate and inadequate consideration of this matter and reflects poorly on the NFPA codes and standards development process.

As currently amended and if the action is upheld, the NEC will now require only circuits in "living areas" within dwelling unit bedrooms to be protected, which is wholly confusing and clearly not the intent. Alternatively, a questionable stretch to interpret the amended requirement as applying to all "living areas" within the dwelling unit could be made, but that would then exclude all bedrooms, bathrooms, kitchens, etc. because those areas do not fall under the definition of "living area." ("Living area" is not defined in the NEC, but would presumably be based on the definition found in NFPA 101)

Those arguments aside and notwithstanding the general agreement by proponents and opponents alike as to what the intent of Comment 2-91 is, the salient point is that the comment is not suitable as submitted and accepted, and "fixing it" would require action that is not permitted by NFPA's Regulations Governing Committee Projects.

The CMP-2 was correct in their original rejection of 2-91 and 2-140 and those actions should be upheld.

Additional substantiation: As noted previously, should the ATM action to accept Comment 2-91 be affirmed and this appeal become necessary, we will submit additional substantiation that will also reflect the pending CMP-2 and TCC actions.

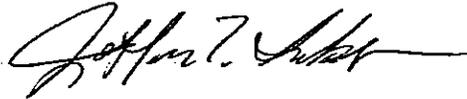
Relief requested:

We respectfully request that the Standards Council reject Comment 2-91, Log #510, NEC-P02

Thank you for this opportunity to appeal.

Please contact me with any questions you may have.

Sincerely,



Jeffrey T. Inks

cc: Ed Sutton
Andy Anderson