May 14, 1971 WRG 002138

T. P. Feit

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Thanks, Russ.

There are two general comments I'd like to make regarding your presentation, Russ. One, concerns the reliability or practicability of the fire resistance ratings achieved from your testing and the other has to do with the last half of your talk - that portion dealing with the evaluation process or engineering studies. If I may I'll address myself to this latter subject first.

Now, from time-to-time manufacturers of the construction materials used in the UL fire related designs have modified and upgraded their products by design, formulation alterations, and the like and have received UL approval through the process just explained. No big deal.

Perhaps the most recent and the most appropriate occurrence of this was the removal of asbestos from spray-applied fireproofing, including the formulation of Mono-Kote, Type III.

New York City and others became concerned over the possible hazards of the use of sprayed asbestos fireproofing. Because Mono-Kote was mixed with water and pumped and sprayed wet, locking-in all of the dry ingredients, we felt that cementitious, plaster-type spray-applied materials should be considered differently from the asbestos mineral fiber types that are pumped dry and atomized with varying degrees of water at the nozzle of the spraying equipment. Indeed, studies were performed by medical consultants, independent testing laboratories, and ourselves verifying from jobsite air sampling at the mixer, nozzle, and adjacent areas that the trace of air-borne material resulting from the spraying of cementitious material was below the fiber tolerance limit. Nevertheless, Mono-Kote was reformulated without asbestos.

Facing us then was the requirement to obtain approval of the over-forty fire resistance classifications which were applicable to the asbestos containing formulation.

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PLAINTIFF'S EXHIBIT WRG-604

A detailed program was planned with and by the engineers at UL to provide for a series of testing which would, if successful, eliminate the necessity of retesting 42 fire test assemblies.

Well, full-scale 18 foot by 14 foot fire testing was performed and supplemented with additional smaller-scale fire testing, all at Underwriters' in accordance with details earlier described. The outcome of which was the listing of the new asbestos free material by UL for an entire range of beam, column, floor and roof fire resistance ratings. Do I need to summarize?

About the time all of this was taking place, two major fires occurred in New York City - at One New York Plaza and at Nine Nineteen Third Avenue. And since then, if you'll excuse the pun, the subject of firesafety has been a very hot item indeed.

Allow me to mention some of the meetings that have taken place just within the last month.

The GSA's International Conference on Firesafety in High-Rise Buildings last month in Warrenton, Virginia - which some of you here attended - assembled some of the most expert people in the field of fire safety. A similar High Rise Fire Protection Planning Conference took place last week in Chicago, sponsored by the Chicago Committee on High Rise Buildings.

Gentlemen, times change and the recent fires in high-rise buildings and the conferences which have been prompted by them will result in additional changes.

I could not attempt to summarize all of the suggestions that were forthcoming from these two meetings, nor could I do them justice, but I would like to share with you some of my impressions from these two conferences as they relate to fireproofing, or more correctly, structural fire resistance.

First, questions are asked as to the reliability of translating the conditions and results of standard fire tests to real fire conditions. Included in this, I believe, is the difference between the fire tested constructions and their actual

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installation in normal construction practice. Rather than suggest that the workmanship performed in preparing the fire test specimen be reduced to approximate actual job conditions, I would suggest that the normal field practices be improved to be more similar to those performed in the laboratory.

Second, and in a similar vein, it is felt that there is a major need for increased inspection and control of construction operations to assure that the system installed is actually the system that was intended to be installed in all details. Construction supervision should contemplate and include the necessary resources to insure tight and full inspection of the process and conduction of necessary as-applied tests to insure that the proper installation is made. This is important for all construction details and certainly for the fire protection systems - whether direct-to-steel fireproofing, concrete encasement, suspended ceilings, drywall partitions, smoke and heat detectors, alarm systems, sprinkler installation and I can go on. If the fire test was developed with wallboard screws 8" on center, that is important and if it is not practical the fire test data is of little or no value. The same can be said for applied thicknesses and densities of sprayed fireproofing, and again the examples are almost endless.

Let me relate what the sprayed fireproofing industry is doing to establish field applied quality control. Last December at the ASTM Committee E-6 meeting, I cast a negative ballot to the proposed test method for sprayed fireproofing. The reason for my negative, while somewhat more involved, was that the method did not provide for field testing of the installed material; that is, all of the tests were for laboratory prepared samples which may or may not be the condition of the as-installed samples.

At that time, I was alone in my stand for the need for on-site test methods. I am happy to report that progress has taken place since that December meeting. The Sprayed Mineral Fiber Association now, apparently, supports the necessity of field inspection and quality control procedures. The ASTM Task Group, of which I

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am a member, writing the draft for this test method, met last week and has ... tentatively agreed to include field testing procedures. So that I have made myself clear, this proposed method of test is in the working stages still to be finalized by the five-man Task Group. The draft has yet to be voted on by the appropriate Subcommittee and main Committee of E-6, but I thought that you'd want to hear of this very recent development. Of course, whatever results, the need to insure the proper installation will remain.

In conclusion, I remind you that there exist many types of fire protection materials and systems, and the thickness of the Underwriters' Laboratories, January 1970 is evidence to this fact. These materials and systems, while different, can do the job and provide the required structural protection. What they all have in common is the requirement that they be installed properly in a like manner to which they were installed or applied in the documenting fire test.

Thank you.

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• Thanks, Russ.

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~~Building Materials List~~ These

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Thank you.

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Tom Egan, Manager, Fireproofing Products

(DD [illegible] is the next speaker,

Chicago Committee on High Rise 7151126
Buildings.

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