

From: Jonathan Ochshorn

Date: Thursday, October 17, 2013 9:58 AM

To: Brian Tollisen

Cc: Charles Bliss, Mike Niechwiadowicz, Gary Norbert Wilhelm, Ed Girzone, Shirley Katherine Egan

Subject: Re: follow up drawings regarding Petition No. 2013-0250

Hi Brian,

I received a copy of a letter addressed to you from Shirley Egan of Cornell, dated Oct. 15, 2013 (attached to this email). In it she states that a party must first "request permission from the court or (as in this case) quasi-judicial board, to reopen and reargue a matter" and that therefore "Mr. Ochshorn's purported re-argument is improper." Ms. Egan also requests that my email (copied below) "be deemed a a motion to the Board of Review requesting its permission to allow him to reargue."

Perhaps you can sort through the apparent contradictions in Ms. Egan's attempt to prevent further discussion of Cornell's noncompliant fire barrier between the Milstein Hall and Sibley Hall portion of the combined Rand-Sibley-Milstein Hall building. On the one hand, she asks you to consider my email as a motion requesting permission to reargue; on the other hand, she claims that this request is improper because I must first request permission to reargue. Go figure.

Ms. Egan further claims that the City of Ithaca's submittal of the NER-516 document — a document that was already shown to the Hearing Board and referenced by the City of Ithaca in testimony at the July 18, 2013 Hearing (Petition No. 2013-0250) — somehow satisfies the Hearing Board's requirement for "**submittal from the City of Ithaca on the testified approvals from the compliance testing lab.**" The "testified approvals from the compliance testing lab" sought by the Hearing Board cannot simply be that Tyco sprinklers, when installed correctly, meet certain fire-rating standards. This fact was never in doubt, and was never the subject of the Petition. The only issue raised by the Petition was whether the sprinklers, *as installed*, were compliant. The document submitted by the City of Ithaca proves, with absolutely no ambiguity, that these sprinklers, as installed, are noncompliant.

Does the hearing Board really want to accept this document as evidence that the "testified approvals" meet the standards of the testing lab, when this document proves the exact opposite?

Ms. Egan also claims that "the Board of Review heard — fully — from all three parties concerned, including Mr. Ochshorn, and then exercised its independent, considered judgment to reach its own decision on the matter. The fact that the decision does not coincide with Mr. Ochshorn's position does not mandate further review, no matter how many times he requests it."

Neither Cornell nor the City of Ithaca provided a copy of NER-516 (the document they presented in testimony at the July 18, 2013 hearing, and the document ultimately submitted per the Review Board's request) to me before or during the Hearing, so I had no way of challenging its use as "testimony" in support of the City of Ithaca's claim that the Tyco sprinklers, as installed, were compliant. Therefore, I am not simply rearguing the same point over and over again, as Ms.

Egan claims, but am responding to new evidence submitted by the City of Ithaca *after* the Hearing that I have never before seen, and that I was never able to challenge at the Hearing.

I'm not even sure that a re-opened Hearing is necessary in this case: the City of Ithaca's submittal did not satisfy the requirements stipulated in the hearing Board's decision. Therefore, it may be possible for the Hearing Board to simply reject the City of Ithaca's submittal, since it doesn't provide any documentation supporting the *as-installed* compliance of the sprinkler system, and revise its decision accordingly. Either way, letting the City of Ithaca and Cornell University build this dangerous and noncompliant fire barrier in complete disregard for fire safety considerations regulated under the Building Code of New York State would make a mockery of the whole Code Review process.

Jonathan Ochshorn
Phone: 607 255-1194

From: Jonathan Ochshorn
Date: Thursday, October 3, 2013 11:13 AM
To: Brian Tollisen
Cc: Charles Bliss, Mike Niechwiadowicz, Gary Norbert Wilhelm, Ed Girzone
Subject: Re: follow up drawings regarding Petition No. 2013-0250

Hi Brian,

Charles Bliss has sent me a copy of the City of Ithaca's follow up letter to Chairman Maney (dated Sept. 17, 2013) including information on Determination Nos. 2 and 3 of Petition No. 2013-0250. It should be noted that the City of Ithaca (and Cornell) continue to be in violation of Determinations No. 1 and No. 8, and that the requirements in Determination No. 7 ("The Board notes that the posting of the occupant load as stated today needs to be immediately reviewed for the current use and altered as required.") have still not been implemented.

My immediate concern, however, is that the required documentation for Determination No. 3, supporting the City of Ithaca's testimony that the use of Tyco Model WS Specific Application Window Sprinklers is consistent with requirements for code-compliant fire separation, has not been produced:

"...the Board upholds the decision of the code enforcement official in light of information submitted and testimony given today that adequate code-compliant fire separation does exist, and the Board of Review will expect a submittal from the City of Ithaca on the testified approvals from the compliance testing lab."

My petition never questioned the adequacy of Tyco Sprinklers when installed and maintained in accordance with installation instructions and specifications. Therefore, producing the NER-516 Legacy Report, which was already introduced into testimony at the Hearing, is completely irrelevant. What my petition challenged, and what testimony from the City of Ithaca and Cornell attempted to refute, was that the sprinklers violated as many as three requirements of the manufacturer, any one of which would render the application noncompliant. Specifically, the violations cited were as follows: (a) that such sprinklers cannot be used as listed when horizontal

mullions are present; (b) that sprinklers should not be sandwiched between fire-rated glazing and existing windows; and (c) that all combustible material must be kept two inches from the face of the glass.

Examining the **NER-516 Legacy Report** provided by the City of Ithaca, one can clearly see that items (a) and (c) are specifically listed as violations that make the use of such sprinklers for their intended purpose noncompliant.

Section 7.3 of the **NER-516 Legacy Report** states: "The glazing assembly shall not have intermediate horizontal mullions."

report govern if there are any conflicts between the manufacturer's instructions and this report.

7.2 Hydraulic calculations shall show a maximum pressure of 175 psi (1207 kPa) on the vertical sidewall sprinkler heads and horizontal sidewall sprinkler heads separated by a vertical mullion. The hydraulic calculation shall show a maximum pressure of 70 psi (483 kPa) for horizontal sidewall sprinkler heads that are not separated by a vertical mullion which acts as a baffle between sprinkler heads shall be shown.

7.3 The glazing assembly shall not have intermediate horizontal mullions.

7.4 The glazing shall not be used in locations that contain materials that represent explosion or detonation hazards.

Figure 3B in the **TYCO** product description included in the City of Ithaca's submission reinforces the same prohibition: "Window Sprinklers are **NOT** listed to protect windows when intermediate horizontal mullions are present."

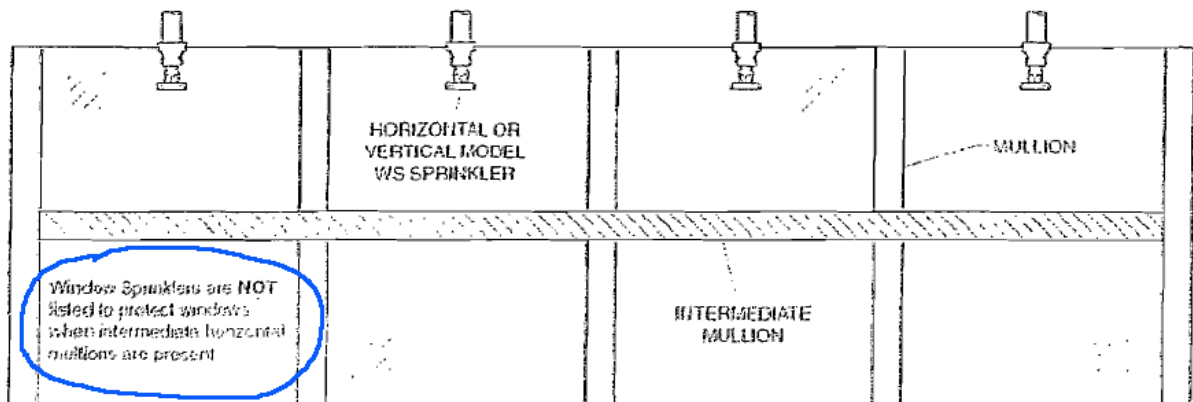


Figure 3B-3 — WINDOWS WITH HORIZONTAL MULLIONS

Section 7.8 of the **NER-516 Legacy Report** states: "All combustible materials shall be kept 2 inches (51 mm) from the face of the glass..."

7.7 Glazing Assemblies that incorporate other than wet-type sprinkler systems or load-bearing assemblies are outside the scope of this report.

7.8 All combustible materials shall be kept 2 inches (51 mm) from the face of the glass. This can be accomplished by a 36-inch (914 mm) pony wall.

The evaluation of the use of alternative methods to the pony wall described in this report to maintain a minimum 2-inch (51 mm) clearance of combustibles from the face of the assembly is outside the scope of this evaluation. The use of an alternative method shall be subjected to specific approval by the authority having jurisdiction and evidence supporting the alternative construction shall be submitted to the code official with the application for

There is no specific prohibition against sandwiching the sprinklers between the fire-rated glazing and the existing windows, but the Application Specialist at Tyco warns against this in the email that I presented in testimony at the Hearing. In any case, whether one, two, or all three of these objections are upheld, the sprinkler application is still noncompliant. The City of Ithaca's own response, in submitting the NER-516 Legacy Report and Tyco product literature, confirms that at least two of my objections are valid. Therefore, not only have they failed to provide "**testified approvals from the compliance testing lab**" that support their contention that the sprinklers, as installed, are compliant, but they have actually provided documentation that confirms what my testimony had alleged: that the "installation instructions included in this data sheet [were not] precisely followed" and that the sprinklers were not "installed and maintained in compliance with this document" (these quotes are from the Tyco product literature provided by the City of Ithaca).

All of these objections were also validated by the Applications Specialist at Tyco. Relevant excerpts from his email testimony were presented at the Hearing; I have copied the full email correspondence below, for your information, with the most important passages highlighted in bold, red font. His conclusion was that "this installation does not appear to be in compliance with the UL Listing per Tyco data sheet TFP620, ESR-2397 or NER-516."

Please let me know how the NYS DCEA intends to respond to this. It is extremely important that a response is made quickly, since Thomas Hoard, acting on behalf of Cornell University, has already submitted a request for a Code variance (to overturn the Hearing Board's findings regarding Exhibit 8) that is based, in part, on the assumption that adequate fire separation has been provided with these sprinklers.

I continue to believe that re-opening the Hearing concerning Petition No. 2013-0250 is the best course of action, since so many issues appear to remain unresolved, and I look forward to hearing back from you as soon as possible.

Jonathan Ochshorn
Phone: 607 255-1194

From: Ken Dias
Date: Wednesday, July 24, 2013 8:40 AM
To: Jonathan Ochshorn
Cc: Maughan, Kevin
Subject: RE: Use of Tyco Model WS 5.6 K-Factor Window Sprinklers

Jonathan,

It appears that the intended use of the WS sprinklers per your provided photo is to provide a fire rated "equivalency" to the newer pane of glass (in black frame) located adjacent (in front) of the original window. I will therefore first address my comments with regard to this.

You have stated that the inside vertical WS sprinkler is less than 4 inches from the inside face of glass. The UL Listing requires a minimum of 4" from the face of glass. We have not performed testing at distances less than 4 inches to my knowledge and therefore cannot speculate on the impact of the distribution of water onto the glazing. **There appears to be a horizontal mullion running across this new pane of glass. Horizontal mullions are not allowed in accordance with the UL Specific Application Listing.**

You have stated that the wood framing from the original window is less than 2" from the new glazing. The UL Listing requires that all combustible material must be a minimum 2" from the face of glazing.

With regard to the WS sprinkler on the other side (outside) of the newer glazing, I have the following comment. **You have stated that there is a horizontal mullion projecting more than 5/8" from the glazing. It is likely that this horizontal mullion would impede the smooth continuous flow of water down the glazing and create unacceptable dry spots. Again, horizontal mullions are not allowed in accordance with the UL Specific Application Listing.**

Lastly, this installation is quite unique in nature as it encompasses a "new" piece of glazing located off of an existing window, resulting in an "enclosed" area between two pieces of glazing where one of the two WS sprinklers is located within. This arrangement was not considered in the UL testing nor is it addressed within the evaluation service reports. It should be understood that the intent of the WS Window Sprinkler is to realize activation in a timely enough manner to protect the associated glazing. **The existence of two panes of glass on either side of the one WS sprinkler will result in the prevention of hot gasses to that sprinkler until such time that the original pane may rupture. Consideration should be given to what will happen to the rupturing pieces or sections of glass. Could large pieces somehow be propped up against the newer pane, causing an obstruction to the smooth flow of water down this pane?**

In conclusion, this installation does not appear to be in compliance with the UL Listing per Tyco data sheet TFP620, ESR-2397 or NER-516

Please contact Technical Services if you have any other questions or concerns.

Regards,

Ken Dias / Applications Specialist / **Tyco Fire Protection Products**

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From: Jonathan Ochshorn

Sent: Tuesday, July 23, 2013 11:50 AM

To: Dias, Ken

Subject: Use of Tyco Model WS 5.6 K-Factor Window Sprinklers

Hi Ken,

Per our recent phone conversation, I am attaching a photo of an installation using Tyco WS 5.6 K-Factor window sprinklers to achieve a 1-hour (minimum) fire-resistive rating in conformance with the requirements of ASTM E 119.

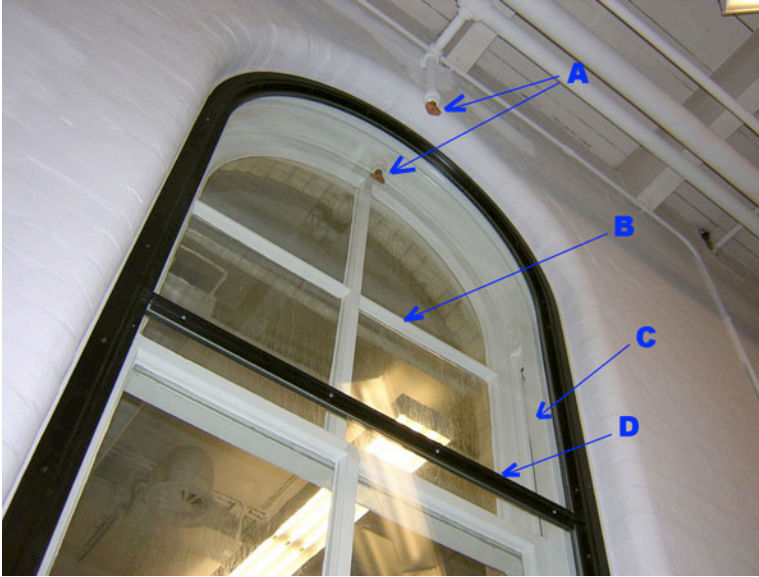
There are four items marked on the photo, and I wish to get your evaluation or comments on each of them: specifically, based on the information I have provided, do they conform to the requirements of ESR-2397 or NER-516.

Item A shows the two vertical sidewall sprinklers. One of the two sprinklers is sandwiched between the new fire-rated glazing (in the black metal frame) and the existing window. This "inside" sprinkler is *less than 4 inches from the face of the fire-rated glazing*.

Item B shows the existing wood-framed window in this installation. The "inside" sprinkler described in Item A is *sandwiched between the existing window and the new fire-rated glazing*.

Item C shows the wood (combustible) frame of the existing window, which is *less than 2 inches from the fire-rated glazing*.

Item D shows a *horizontal mullion* (or muntin) that projects out from the face of the fire-rated glazing more than 5/8 inch.



Thank you for your help.

Jonathan Ochshorn

From: <Bliss>, Charles Bliss <Charles.Bliss@dos.ny.gov>

Date: Wednesday, October 2, 2013 7:08 PM

To: Jonathan Ochshorn <jo24@cornell.edu>

Cc: Brian Tollisen <Brian.Tollisen@dos.ny.gov>

Subject: FW:

I found these documents that you requested

Charles P. Bliss, PE
P.O. Box 129
Rushford, NY 14777

TEL 585-437-5534
FAX 585 437-5708

From: Girzone, Ed (DOS)

Sent: Tuesday, September 24, 2013 2:31 PM

To: Bliss, Charles (DOS)

Cc: Tollisen, Brian (DOS)

Subject:

Charlie,

Attached are the requested follow up documents from the City of Ithaca regarding variance decision 2013-0250.

Ed