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Education Saves Lives — The Fire Performance of Wood Trusses Part 1 by Molly E. Butz

> *"[I had received] a few CDs, but I have a friend on one of the Legislative Committees that attended one of the Fire Chiefs meetings, and now I have a list of 33 fire chiefs requesting a copy of the CD. There are a lot of misnomers out there about wood trusses, but that's only because there is a lack of education. Now that awareness has come about this CD, people want to see it. One can only hope through education and safer practices future accidents can be avoided." —Joseph Messina, Homeowner & Electrical Designer for the Nation Grid Co.*

We take precautions. We don't play with matches, and we still cannot avoid the inevitable: whatever the cause, sometimes structures catch on fire. In 2001, there were more than 521,000 structure fires in the U.S., which means that a fire department responded to a fire in a structure about once every 60 seconds. In February 2000, tragedy struck the Houston Fire Department (HFD) when a fire in a McDonald's restaurant caused the roof to collapse. Tragically, two firefighters lost their lives. This led to a meeting between the HFD and the truss industry, at which time the truss industry and HFD decided to develop an educational program so that there could be a greater understanding by all fire service personnel on both the structural and fire performance of trusses.

The educational program's development was led by and funded through the Carbeck Structural Components Institute (CSCI). CSCI was established as a 501(c)(3) non-profit charitable organization to benefit the structural building components industry through research, development and education. In September 2002, CSCI completed the educational program CD entitled The Fire Performance of Wood Trusses. CSCI has donated this educational program to the U.S. Fire Administration's Education Department for broad distribution to fire departments across the country.

The CSCI fire education program is divided into eight sections, each established to educate fire service personnel about the structural component industry and the facts surrounding the performance of metal plate connected wood trusses when fire strikes. Section I begins with an introduction and an outline of the subsequent sections. To understand the truss industry better and in preparation for working with CSCI staff on the creation of this educational program, members of HFD visited Trussway, Ltd., a Wood Truss Council of America (WTCA) member truss manufacturer located in Houston. The goal of the plant tour was to exchange as much information about wood truss manufacturing and the truss industry as possible.

The introductory section of the program describes the truss plant tour and the opportunities it provided the firefighters to learn and ask questions about the design and manufacturing process.

Plant tours are valuable experiences for any firefighter, and WTCA Chapters and CSCI are always willing to make a tour accessible to any fire department or association across the country.

A brief video, included in the first section, begins a more in-depth assessment of the issues facing firefighters on the fire ground. The video makes an effort to convey a simple point: the key to firefighter safety during a fire is a well-educated fire service. The purpose of the program in its entirety is exactly that, to educate fire personnel and arm them with information that is necessary to make reasonable decisions in the face of an emergency.

Lumber, by nature, is flammable, which means that wood trusses can have performance problems under the siege of fire. But wood trusses are not alone; all materials have performance problems under the siege of fire and will react adversely when the building contents contain highly flammable materials and hence are subject to collapse.

The goal of The Fire Performances of Wood Trusses presentation is basic and vital: to provide firefighters with greater knowledge about the performance of trusses and structural building components in fire, so that when they are on the fire ground they can use this knowledge to make sound decisions initially and as they continue to size up the situation based on facts and not misinformation. The truss industry, CSCI and HFD have made every effort to ensure a well-rounded and completely factual foundation regarding the wood truss industry and truss fire performance.

Look for the next article in this installment in the August 2003 issue of SBC, where we will look at Section 2 of the program, an historical look at the truss industry.

A Guide for WTCA Chapters — Tips on Arranging an Effective CSCI Educational Presentation

There are many ways to use The Fire Performances of Wood Trusses or other WTCA educational programs to demonstrate that your individual company or the local WTCA Chapter is a resource for a local fire service, building official, or specifier gathering. The options for promoting your company or chapter to present an educational program vary in effectiveness and include direct mailing, hand delivery to a firehouse or office, invitations for a presentation and a tour of your facility, offers to address their departments or an invitation to a company or association meeting.

When choosing an option, keep in mind that history has proven over and over again that personal contact will always be more beneficial than blind contact. For example, a direct mailing will diminish the value of the product. Just think about how many direct mail pieces you receive and immediately throw away. Many of us see direct mail as worthless, without even bothering to look at what was sent. How could it have much value if it was cheap enough to send without someone

requesting it?

Face-to-face contact allows you the opportunity to get into the recipient's comfort zone. The primary goal of any salesperson is to work from the customer's comfort zone, because that is a position of inherent value to the customer. From there you've become a resource. Ask if that person wants to meet at their workplace or yours. You and your sales staff are out on the road all the time and it is probably most convenient for the contact to be made at their place of work, but don't just assume that. It may be nice for them to visit your plant. When was the last time you asked a customer, firefighter, architect, engineer or building official to come tour your facility and see first hand what you are doing? For most of us, it is a rarity because it never reaches the top of our task list. Remember that these folks can become some of your best "salespeople." They can be out in the field, selling your company and aren't even on the payroll!

Once you make contact, discuss what kind of presentation you would be able to arrange for your educational program. Would the individual or group like just an introduction and then view the presentation on their own? Would they like to have a full-blown classroom presentation? Could you set up a "box lunch" presentation over the lunch hour? Is there an opportunity to do the presentation at their monthly or quarterly group meeting or at their association meeting? Most fire departments, for example, have regularly scheduled training times. Most builders, realtors, building officials and specifiers have regularly scheduled association meetings where they look for speakers to do these types of presentations. You will find that they want to learn the information you are offering and they will want to arrange a mutually convenient meeting or presentation.

Don't wait for the myths and misconceptions regarding the fire performance of wood trusses to fade on their own. The time is now, the material is excellent, and the opportunity is golden.

For more information on how to get your copy of The Fire Performance of Wood Trusses, call CSCI at 608/271-1176. Visit www.carbeck.org for more tips on how you can effectively present this program.

Terms Used by the Fire Industry

Fire load: The measure of maximum heat release when all combustible material in a given fire area is burned. The content and structure of a building contribute to fire load.

Fire retardant: Having or providing comparatively low flammability or flame spread properties.

Sprinkler System: An automatic water delivery system designed to discharge water to suppress or control a fire. National Fire Protection Association (NFPA) 13 is the primary installation guide.

Time/Temperature Curve: In the context of fire-performance testing, this describes a prescribed time-temperature relationship used to control furnace temperature with progressing

time. Examples: ASTM Test Method E119 Time/Temperature Curve and the NIST Time/ Temperature Curve.

Universal Building Labeling: Used in the context of labeling all types of construction and structural elements of buildings for fire service pre-fire planning purposes to help in early size-up identification. It is also used in the context of labeling for hazardous contents.

Unprotected Assemblies: In the context of structural assemblies, this describes an assembly that has no fire-retardant barrier on the surface expected to be exposed to the fire source. An example would be a floor assembly with no ceiling finish.

SBC HOME PAGE

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