

U.S. Fire Administration / National Fire Academy

# Warning: Hot Coffee!

## Topic: Web-Based Lightweight Construction Education

**Learning objective:** The student shall be able to obtain online education to enhance firefighter awareness of lightweight construction.

Firefighters need to be familiar with lightweight materials and construction techniques they find during fires. Modern design, construction, and wood products present new opportunities for builders and the fire service alike.

To help the fire service learn more about these products and their behavior during fires, the American Forest & Paper Association (AF&PA) and U.S. Fire Administration (USFA) today announce the launch of a comprehensive Web-based educational program designed to enhance firefighter awareness of lightweight construction components.

“Firefighter safety and building construction are important issues for the fire service today,” said Charlie Dickinson, acting U.S. Fire Administrator. “Education is critical for firefighters operating at incidents to understand how modern building products perform in fires.”

Engineered wood products (trusses, glue-laminated beams, structural composite lumber, structural insulated panels, and wood structural panels) are replacing dimensional lumber in many applications.

Lumber, plywood, and other wood-based materials, including the components of I-joists and trusses, exhibit a relatively narrow flame spread range. Flame spread rates for engi-

neered wood products such as laminated veneer lumber, parallel strand lumber, and laminated strand lumber are within the same range as solid wood materials. Differences result from factors such as density, thickness, surface characteristics, and coatings or other chemicals applied, if any. Typically, at thicknesses greater than 1/4 inch, flame spread is almost independent of material thickness.

The Web-based training program, found at <http://www.usfa.dhs.gov/fireservice/research/safety/construction.shtm>, was developed as an AF&PA/USFA cooperative agreement with the assistance of several State and local training organizations. FireFrame, an interactive tool that explains building construction methods, also is included on the site.



The screenshot shows a web browser window displaying the website for the American Forest & Paper Association (AF&PA) and the U.S. Fire Administration (USFA). The page title is "FIREFIGHTER SAFETY CONSIDERATIONS DURING OPERATIONS AT STRUCTURES AWARENESS LEVEL". The page content includes a navigation menu on the left with categories like "Engineered Wood Products Primer", "I-Joists", "Trusses", "Glulam / Structural Composite Lumber", "Panels", "Lumber", and "Adhesives". The main text provides information about the awareness level of traditional and modern wood products used in residential construction, developed under a cooperative agreement between the Department of Homeland Security's United States Fire Administration and the American Forest & Paper Association. It discusses the intensity of fire load and the unpredictability of performance under fire conditions. A photograph shows a wooden structure under construction, and another shows a group of people in a training session. The text concludes with the statement: "Therefore, it is vital that firefighters educate themselves with all construction materials."