



International Fire-Shield, Inc.

CEC CODE COMPLIANCE SEMINAR FOR ICC CHAPTER 8 INTERIOR FINISHES & DECORATIVE MATERIALS

***INNOVATIONS IN WORLD CLASS FIRE
RETARDANT SERVICES AND COATINGS***



PRESENTED BY

**INTERNATIONAL FIRE-SHIELD, INC.
AUBURN, NY**



International Fire-Shield, Inc.

IFS, INC. FOUNDER AND PRESIDENT:

PATRICK BUMPUS

**CORPORATE HEADQUARTERS:
AUBURN, NEW YORK USA**



Over
3,000

Independent

Tests

- ❑ Our firm got its start in 1983 as a developer of fire retardant products
- ❑ We incorporated under International Fire-Shield, Inc. in 1994





International Fire-Shield, Inc.

We have manufacturing plants in:



Boston, MA



Niagara Falls, NY



Woodstock, GA



San Rafael, CA



Over
3,000

Independent

Tests

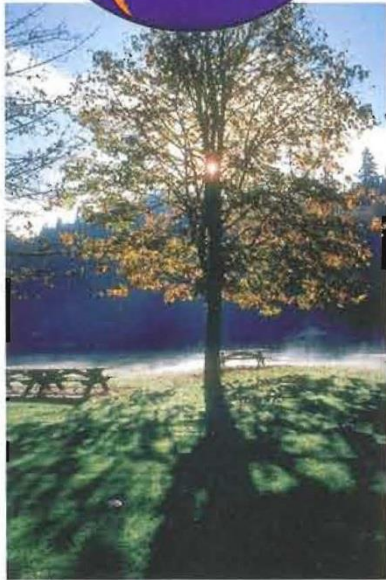
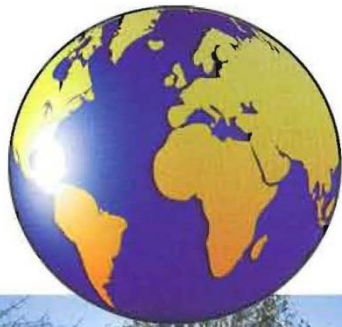
- IFS has developed a full line of UL, ULC, and ICC Classified fire retardant paints, varnishes, and other Class “A” coatings for interior finishes and decorative materials, along with Thermal Barrier applications.





H
I
S
T
O
R
Y

- ❑ International Fire-Shield began targeting some niche markets in 2012 and is planning for growth as a result
- ❑ Our company based in Auburn, NY has doubled our staff and expects to double our workforce again in 2013



- We have completed extensive testing, are considered Environmentally Green and have extensive experience with code compliance issues.



Code Compliance Issues & Answers for Interior Finishes, Decorative Materials and Thermal Barriers





Code Compliance History

NFPA and the formation of the ICC



Code Compliance History

International Fire Code & Uniform Building Code Chapter 8 Interior Finishes and Decorative Materials

- Decorative Materials and Trim
- Upholstered Furniture
- Interior Wall and Ceiling Finishes
- Occupancy-based Requirements



Code Compliance History

Section 302 – Use and Occupancy Classification

- Assembly
- Business
- Educational
- Factory and Industrial
- High Hazard
- Institutional
- Mercantile
- Residential
- Storage
- Utility and Miscellaneous



Code Compliance History

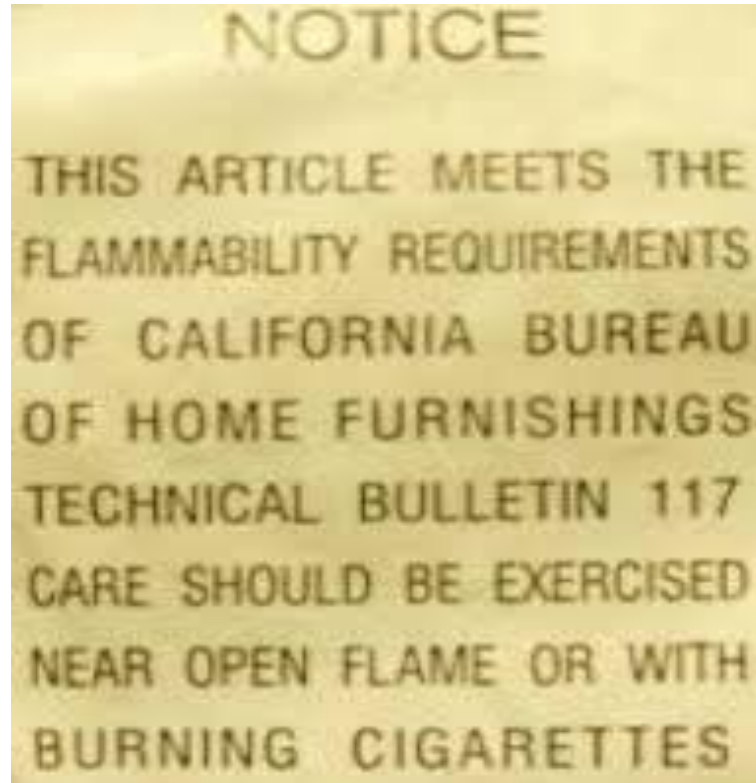
Chapter 26 Foam Plastic Insulation

- Surface Burning Characteristics
- Thermal Barrier



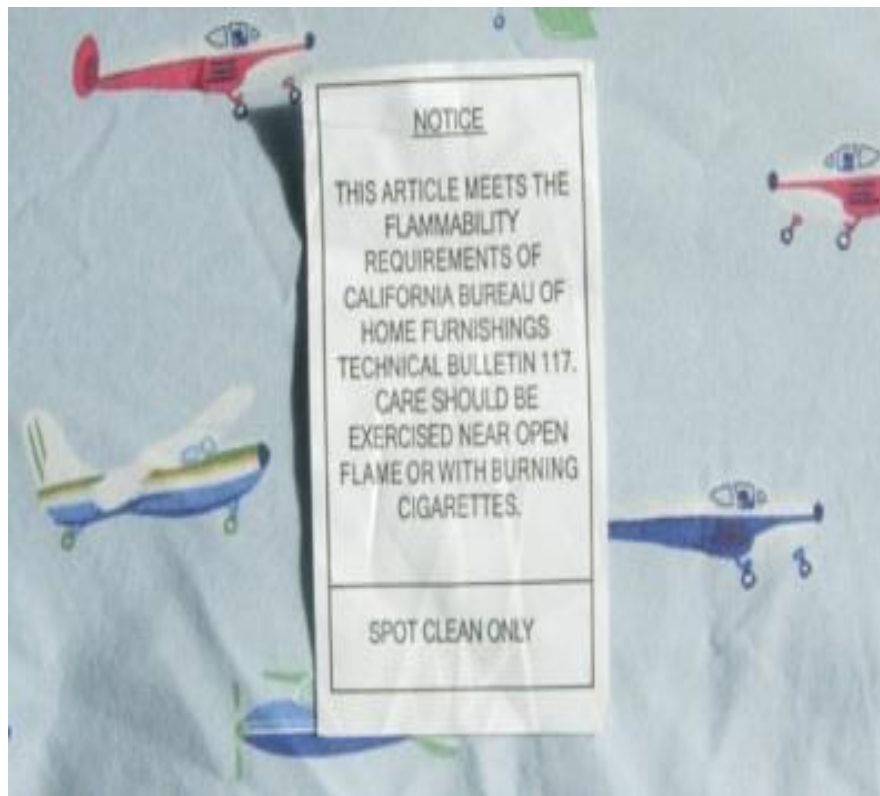
California Technical Bulletin 117

For upholstered furniture and specific occupancies





California Technical Bulletin 117



**UNDER PENALTY OF LAW THIS
TAG IS NOT TO BE REMOVED
EXCEPT BY THE CONSUMER**

**ALL NEW MATERIALS
CONSISTING OF**

Filling:

100% Shredded Polyurethane Foam

REG. NO. CA-35099 (MI)

Certification is made by the manufacturer
that the material in this article are
described in accordance with the law.

Made By
Comfort Research
3860 Roger B. Chaffee Blvd.
Grand Rapids, MI 49548

Date of Delivery:

Made in the USA

Notice

**THIS ARTICLE MEETS THE
FLAMMABILITY
REQUIREMENTS OF
CALIFORNIA BUREAU OF
HOME FURNISHINGS
TECHNICAL BULLETIN 117.
CARE SHOULD BE EXERCISED
NEAR OPEN FLAME OR WITH
BURNING CIGARETTES.**



00:04:10;12



FR Foam No Fire Barrier



Non-FR Foam No Fire Barrier

EXCLUSIVE



FANNING THE FLAMES

Safety & effectiveness of flame retardants in question





International Fire-Shield, Inc.

Inherently Flame-Retardant (IFR) Materials – NFPA 701-2010 and current Fire Code Compliance





Dupont

- ❑ These materials are made flame-resistant by the application of flame-retardant chemicals.
- ❑ A chemical additive in the fiber or treatment on the fabric is used to provide some level of flame retardancy.



Dupont

- ❑ FR-treated garments may be damaged by chlorine bleach, hard water or exposure to oxidizing chemicals.
- ❑ Exposure to oxidizing chemicals could over time compromise the flame-resistant properties of the garments made with FR fabric.



I Weisse

- ❑ IFR Fabrics are manufactured from polyester yarns to meet NFPA 701 testing protocol without any additional treatment.
- ❑ These fabrics are expected to retain their IFR properties for the life of the material, however, **this cannot be guaranteed.**



I Weisse

- Conditions of use including time, humidity, excessive dust or dirt etc. may adversely affect the flame retardant capabilities.
- A yearly field test to verify the status is strongly recommended.



Dazian Fabrics

- ❑ Although there may be no degradation from washing or dry cleaning, the same factors of environment, use of added components and further processing may compromise its flame resistance.
- ❑ Retesting every few years and re-flameproofing may still be required



INHERENTLY FLAME RETARDANT

DO NOT REMOVE THIS TAG

Material used in the manufacture of this item meets the flame resistance requirements of CPAI-84 : Section 6 (State of California Standards)

WARNING : KEEP ALL FLAME & HEAT SOURCES AWAY FROM THIS ITEM

This tarpaulin is made with a flame resistant coating which meets CPAI-84 Section 6 specifications.

IT IS NOT FIREPROOF. The flame retardant nature of this cover is intended to increase the length of time it takes for the material to catch light however the fabric will burn if left in continuous contact with any flame source.

It is the sole responsibility of the end user to determine the suitability of this product for their intended usage.

Please note : the reinforced corners & this tag is NOT flame resistant



H
I
S
T
O
R
Y

- ❑ Mr. Bumpus returned to the firm about **18 months ago** after some time off
- ❑ Saw a **major need** among certain occupancies and areas of public assembly, for a more effective approach to fire retardant applications and maintenance



Problems and Solutions

the PROBLEMS

our SOLUTIONS



THE PROBLEMS

- Fire-retardant products are not properly matched to applications
- Improper Product Application
- Inability to document, track and monitor applications on an ongoing basis



OUR SOLUTIONS



FACILITY EVALUATION SERVICE

Matches application with UL, ULC and ICC classified fire-retardant paints, varnishes, and coatings.

CERTIFIED APPLICATOR PROGRAM

Certified applicators are trained to properly apply and maintain material compliance.

UV IDENTIFICATION & TRACKING PROGRAM

Easily and economically bring facilities into code compliance with fire-safe environments.

QUALITY CONTROL PROGRAMS

Enables clients and fire safety officials access to treatment and re-treatment records on all goods in all facilities.



International Fire-Shield, Inc.

FR University





FR University

- ❑ Facility Evaluation Service
- ❑ Certified Applicators Program
- ❑ UV Identification & Tracking
- ❑ Quality Control Programs





Facility Evaluation Service

- Inspection of interior finishes and decorative materials
- Polyurethane foam and foam board
- Non-rated fire doors
- Accessible basements and attics
- Attached garages and access ramps





Inspecta-Shield Plus

Inspecta-Shield Plus is a durable, non-toxic, fire retardant chemical coating. When properly applied, Inspecta-Shield meets or exceeds the criteria for a “Class A” rating on most materials.



Inspecta-Shield Plus can be applied to a wide variety of items including:



Draperies



Exposed timbers



Plywood



Upholstery



1500° Series FRL



1500° Series FRL is a **“Class A”** rated (**FS10**), **Interior latex, fire-retardant paint**. Water reducible. It dries to a **flat finish** and is designed primarily for use on combustible substrates. 190-200 sq.ft./gal. – one or two coats.

1500° Series FRL is ideal for:



Hallways



Rooms/Walls



1500° Series FRV



1500° Series FRV is a **Class “A” (FS15)** Intumescent Fire Retardant Varnish. **Interior use**, provides a satin finish. Solvent based. Not recommended for use on floors, doors or shelving, but **great for paneling, Masonite, wood beams and columns. 300 sq.ft./gal. – 2 coats required.**

1500° Series FRT

1500° Series FRT is a **Class “A” (FS15)** Intumescent Fire Retardant Varnish Overcoat. **Interior use**, low-semi and hi-gloss sheens available. Solvent based. **Recommended overcoat for 1500° Series FRV. 600-800 sq.ft./gal.**





International Fire-Shield, Inc.



1500° Series FRV-WB

1500° Series FRV-WB is a **Water Base Fire Retardant Polyurethane Varnish Class "B" (FS55)**. Available in a Semi-gloss sheen, will not leach or turn white on aging or washing. **450 sq.ft./gal. – 2 coats required.**





International Fire-Shield, Inc.



1500° Series FRV-GF

1500° Series FRV-GF Fire Retardant Polyurethane Varnish is a **“Class B” (FS60)** clear, transparent flame retardant finish, for interior use on gym floors and other wood floor surfaces where maximum resistance to abrasion, scrubbing and washing is required. Available In both semi and high gloss.



1500° Series FR Foam Barrier



1500° Series Foam Barrier is a Class “A” (FS20) rated, **Interior Latex Intumescent Fire Retardant/Ignition Barrier Coating** for Polyurethane Foam Insulation. For use with both ½ pound and 2 pound polyurethane foam insulation. Attic & Crawl Space Test Results: (ICCES Accepted Alternate Test protocol for Ignition Barrier) **200 sq.ft./gal. – 2 coats required.**





SYNTEC 6550

SYNTEC 6550 is a Fluoropolymer based water and oil repellent that locks Inspecta-Shield Flame Retardant into fabrics and lumber that may be subjected to use in the exterior environment. The formula is nonflammable so it doesn't diminish the flame retardant properties of those items treated with Inspecta-Shield.



Certified Applicator Program



Certified Applicator Program





UV Identification and Tracking Program

International Fire-Shield, Inc.
 For All Your Fire Retardant Needs
 P.O. Box 7305 • Auburn, NY 13022
 FAX: (315) 255-2765

(315) 255-1006
 (315) 255-2044
 (315) 255-2763

Date of Treatment _____

APPLICATION FOR CERTIFICATE OF FIRE-RESISTANCE
 Enclose \$25.00 and sample with each application.
 Please note: All information must be properly completed and treated sample enclosed for the Certificate of Fire Resistance to be issued or the application will be returned and an additional \$25.00 fee will be due upon resubmitting.

PERSON OR COMPANY TO RECEIVE CERTIFICATION: _____
 ADDRESS: _____
 TOTAL SQUARE FEET TREATED: _____
 TYPE AND DESCRIPTION OF MATERIAL TREATED (color, composition, etc.): _____

LOCATION OF ITEMS TREATED (i.e. building, room #, etc.): _____
 (If additional rooms is needed attach separate sheet).
 AMOUNT OF INSPECTA-SHIELD USED (in gallons: 1, 1/2, 1/4, etc.): _____
 NAME OF APPLICATING PERSON OR FIRM: _____
 ADDRESS: _____
 TELEPHONE OF APPLICATING PERSON OR FIRM: _____

HAVE ITEMS BEEN FIELD-TESTED BY APPLICATOR? YES or NO (circle)
 DOES TEXTILE PASS FIELD TEST (see below)? YES or NO (circle)
 DOES LUMBER PASS FIELD TEST (see below)? YES or NO (circle)

Does your local fire marshal or insurance adjustor have specific test requirements? (Circle those that apply):
 NFPA-701
 ASTM-E-84 (Steiner Tunnel)
 Others: _____
 Textile Field Test for Inspecta-Shield: Hold bottom of a 4 inch sample into a 1 1/2" flame (butane lighter) for a period of twelve seconds. No combustion of material may be noted.
 Lumber Field Test for Inspecta-Shield: Hold propane or butane torch to a 4" area of treated lumber for a period of 15 seconds. Upon removal, the tested area must self-extinguish within five seconds. FAA-(FAR 25.853 paragraph b)

PRINT NAME OF APPLICATOR ABOVE _____
 WHERE SHOULD ORIGINAL CERTIFICATE OF FIRE-RESISTANCE BE MAILED: _____
 SIGNATURE OF APPLICATOR ABOVE _____

Photocopy this for your future applications for Certificate of Fire-Resistance.
 All specifications and suggestions appearing on our labels and in our literature concerning the use of our products are based upon tests and data believed to be reliable. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by New York Fire-Shield as to the effects of such use or the results to be obtained.

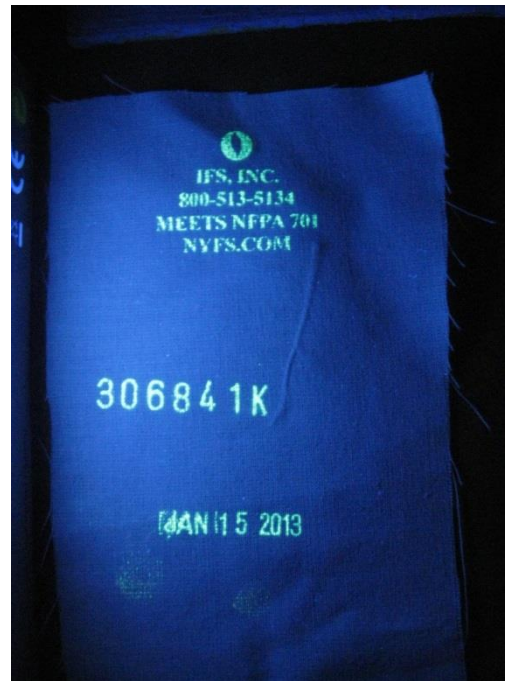




Textile tracking stamp



Textile under
ambient light



Textile under
ultraviolet light



Textile washed
under ultraviolet light



International Fire-Shield, Inc.

Lumber tracking stamp

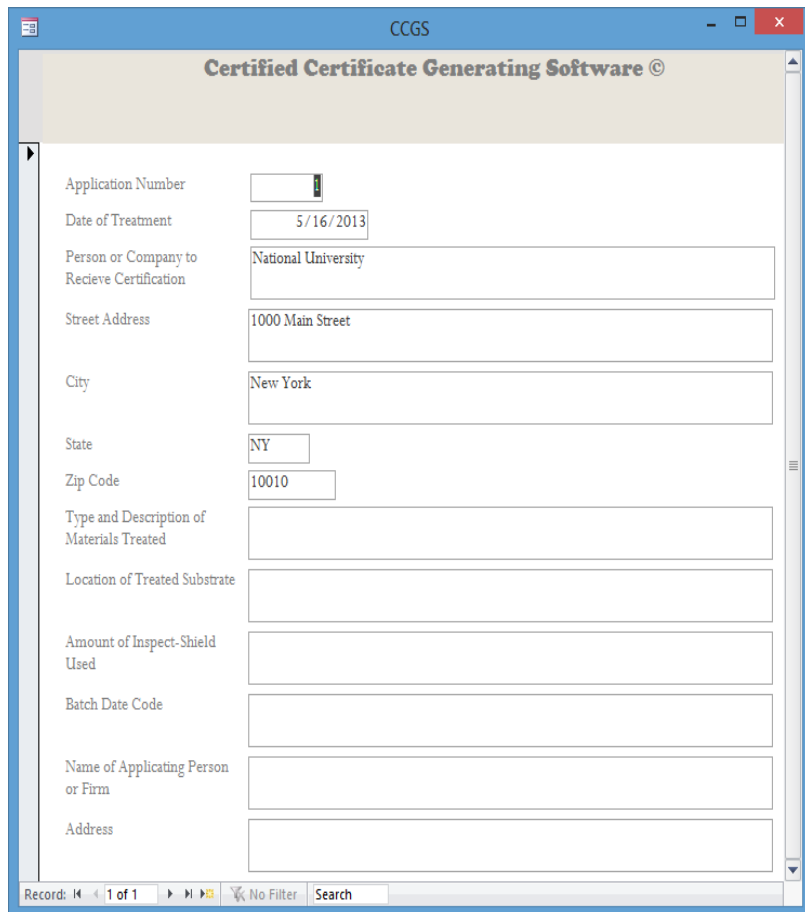


Lumber under ambient lighting



Under ultraviolet light

Quality Control Program



CCGS
Certified Certificate Generating Software ©

Application Number

Date of Treatment

Person or Company to Recieve Certification

Street Address

City

State

Zip Code

Type and Description of Materials Treated

Location of Treated Substrate

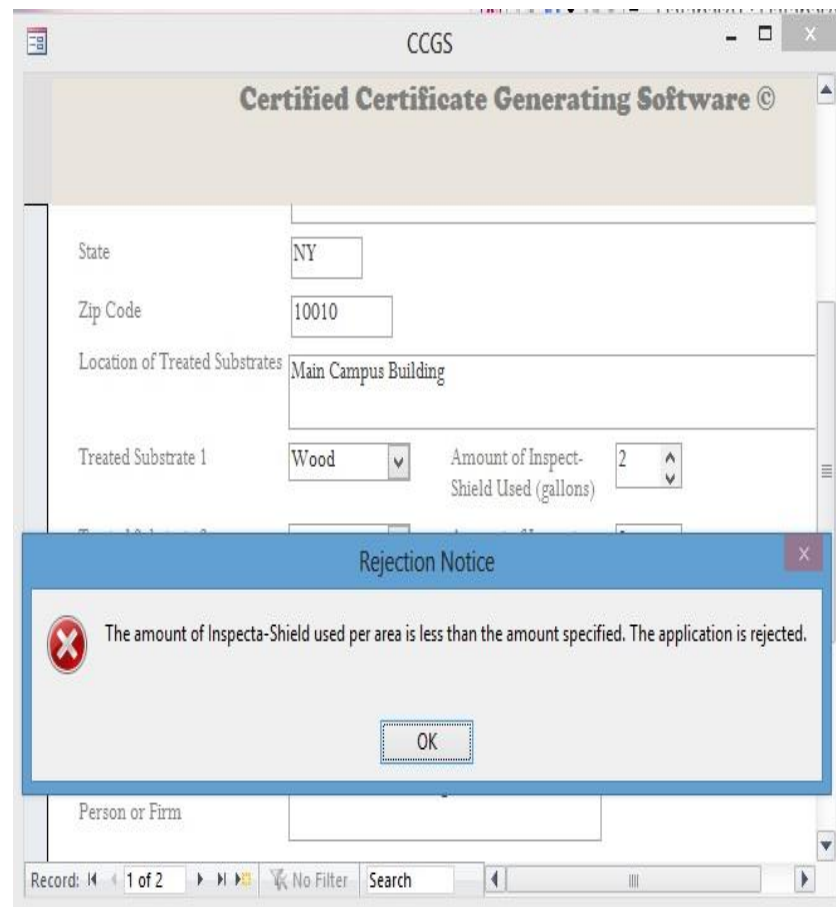
Amount of Inspect-Shield Used

Batch Date Code

Name of Applying Person or Firm

Address

Record: 1 of 1 No Filter Search



CCGS
Certified Certificate Generating Software ©

State

Zip Code


Location of Treated Substrates

Treated Substrate 1 Amount of Inspect-Shield Used (gallons)

Person or Firm

Record: 1 of 2 No Filter Search

Rejection Notice

 The amount of Inspecta-Shield used per area is less than the amount specified. The application is rejected.

OK



International Fire-Shield, Inc.

**Sprinklers
(monitored)**

**Suppression
(monitored)**

FIRE SAFETY

**Alarms
(monitored)**

Fuels

**FR PRODUCTS ARE NOW MONITORED –
*The final link in fire safety***



H
I
S
T
O
R
Y

- ❑ IFS developed a **broad** package to **help** these institutions determine the **best products** for their needs, **apply them correctly**, and then **track and maintain** those applications

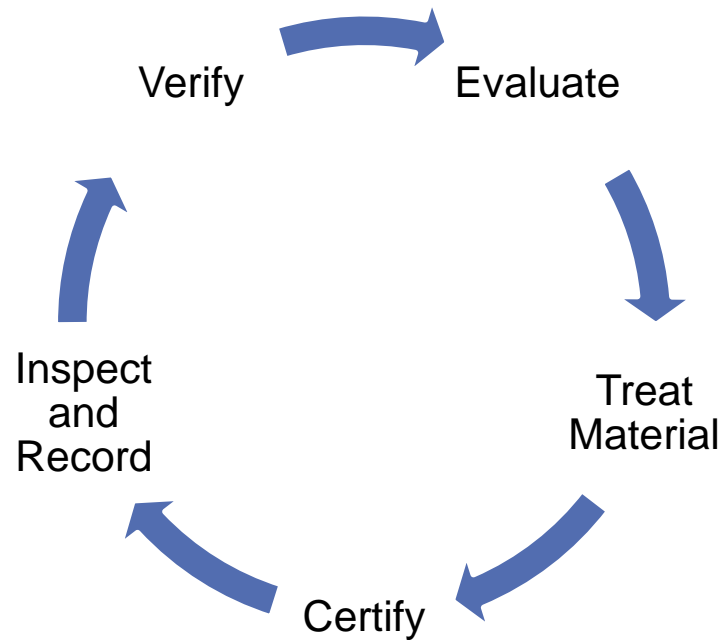


H
I
S
T
O
R
Y

- ❑ In April 2012, New York State's **OPWDD** (Office for People with Developmental Disabilities) began adopting our programs, and a number of universities are looking into incorporating our services and products



IT COMPLETES THE LOOP



IFS Tracking and Monitoring Program completes the loop in fire safety for the first time in history.



International Fire-Shield, Inc.

EXTEND YOUR EVACUATION TIME



Left side cabin is untreated. Right side cabin is treated with FR

Flashover occurs at 4:10



International Fire-Shield, Inc.

Buying Time





**B
U
Y
I
N
G
T
I
M
E**

- In the last decade there have been numerous **fatal fires in disabled residences and student housing**
- Students**, and **particularly disabled people** need **more time** in a fire situation to be evacuated
- New Federal and State fire safety plans** are demanding that these safety concerns be addressed
- Mandatory annual inspections** require that these facilities meet and maintain stringent fire safety requirements



B
U
Y
I
N
G
T
I
M
E

- ❑ In an effort to bring their **facilities** up to code compliance and **reduce potential liability**, administrators have addressed **sprinkler systems, heat & smoke alarms, and evacuation times** (all necessary concerns).



In order to have fire, you need to have these elements...



If you remove one,
YOU CAN'T HAVE FIRE



B
U
Y
I
N
G
T
I
M
E

THE FUELS

- ❑ Most housing fires are accidentally started on decorative materials or by faulty electrical problems that can originate in the attic, basement and interior walls and then quickly spreads to exposed timbers, draperies, decorations, upholstery, varnished wooden wainscoting, trim & other decorative wall or floor areas quickly resulting in flashover, total loss and loss of human life.



B
U
Y
I
N
G
T
I
M
E

REDUCING FUELS

- ❑ By assuring quality, reliable and safe flame retardant applications to furniture, wall hangings, exposed lumber and plywood we will have reduced dramatically the amount of AVAILABLE FUEL that is necessary for fire and have slowed the advancement of flame spread, potentially buying the CRITICAL TIME necessary for evacuation or for fire personnel to arrive.

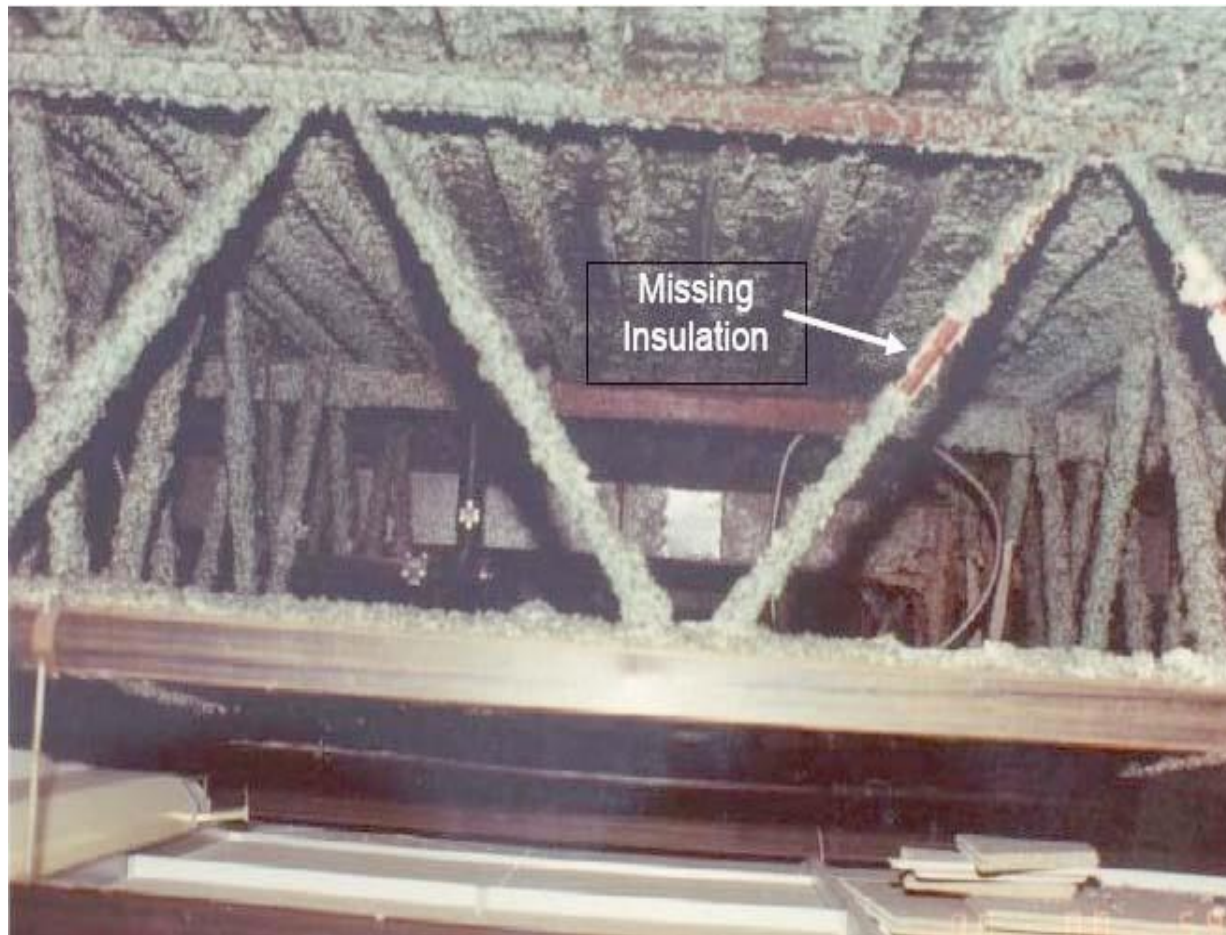


**No
fire-
retardant
interior
finishes...**





**No
monitoring
program...**





International Fire-Shield, Inc.

This house was engineered and built with fire-retardant treated materials



Safety doesn't just happen, it is a plan well executed.
Quality fire retardants when matched up correctly, applied
correctly and monitored - **WORK**



- Cost estimate**
- Budgeting**

Financing





QUESTIONS





For Questions:

Patrick Bumpus – Founder and President, International Fire-Shield, Inc.

ifsinc1@verizon.net

315-255-1006

www.nyfs.com

For Questions:

George Murray – Vice President,
International Fire-Shield, Inc.

ifsinc@verizon.net

315-255-1006

www.nyfs.com