

Webinar

Purchasing Fire-Safe Healthier Furniture: Great News & Concerns

October 19th 2021 @ 10 am pt / 1 pm et

Today's Speakers

- **Judy Levin**, Center for Environmental Health
- **Tonya Corcoran**, CA Bureau of Household Goods and Services
- **Lydia Jahl**, Green Science Policy Institute
- **Jay Fleming**, Boston Fire Department
- **Steve Kooy**, BIFMA (Business and Institutional Furniture Manufacturers Association)
- **Jen Jackson**, San Francisco Department of the Environment

Furniture Flammability Regulations

1975



1991



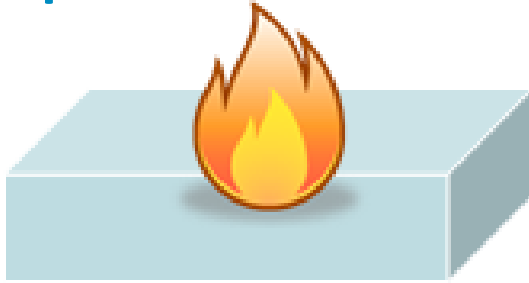
Standards Don't Dictate How to Meet Test Requirements

- Furniture flammability standards are “performance tests”
- They are silent on how these tests are to be met
- Do not require or prohibit use of flame retardant chemicals
- Flame retardant chemicals are cheapest way to meet **open flame test**. Not needed for smolder test.



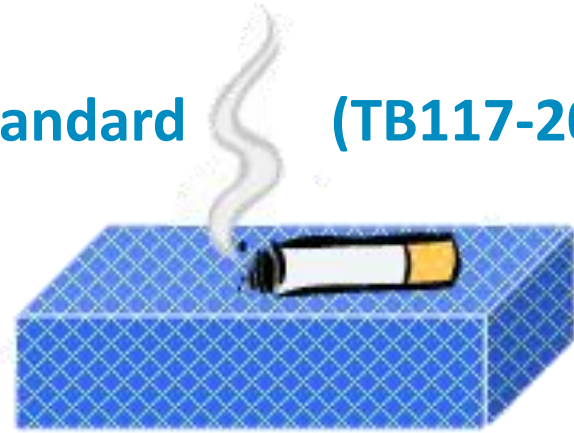
Open Flame versus Smolder Standard

Small Open Flame Standard (TB117)



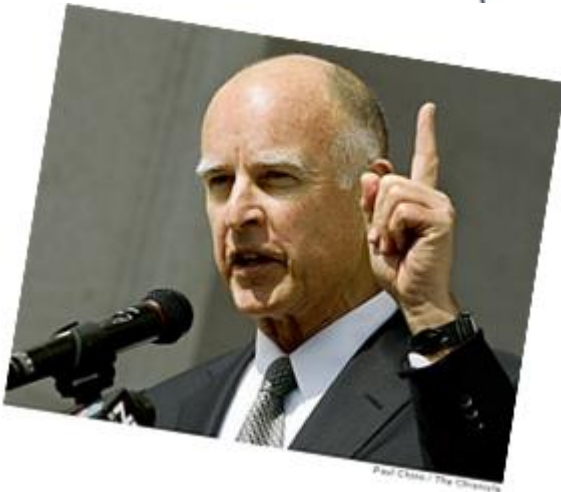
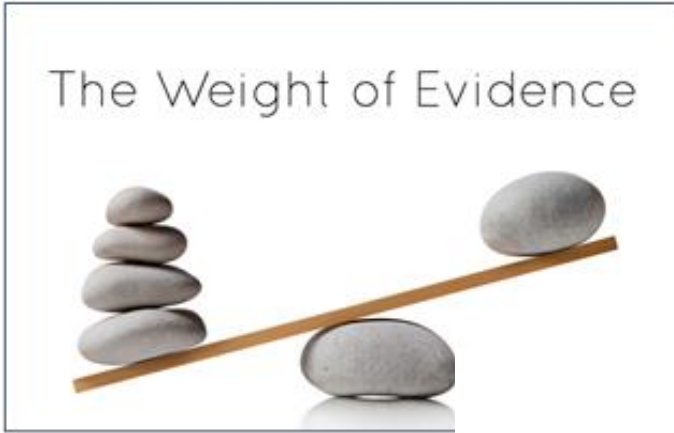
- Must withstand a small open flame on the interior foam
- Not found to have significant fire safety benefit
- Met **with** harmful flame retardants

Smolder Standard (TB117-2013)



- Must withstand most common ignition source, smoldering sources like cigarettes
- Prevents most fabric ignitions, protecting flammable foam
- Can be met **without** flame retardants

New California Furniture Standard TB 117-2013



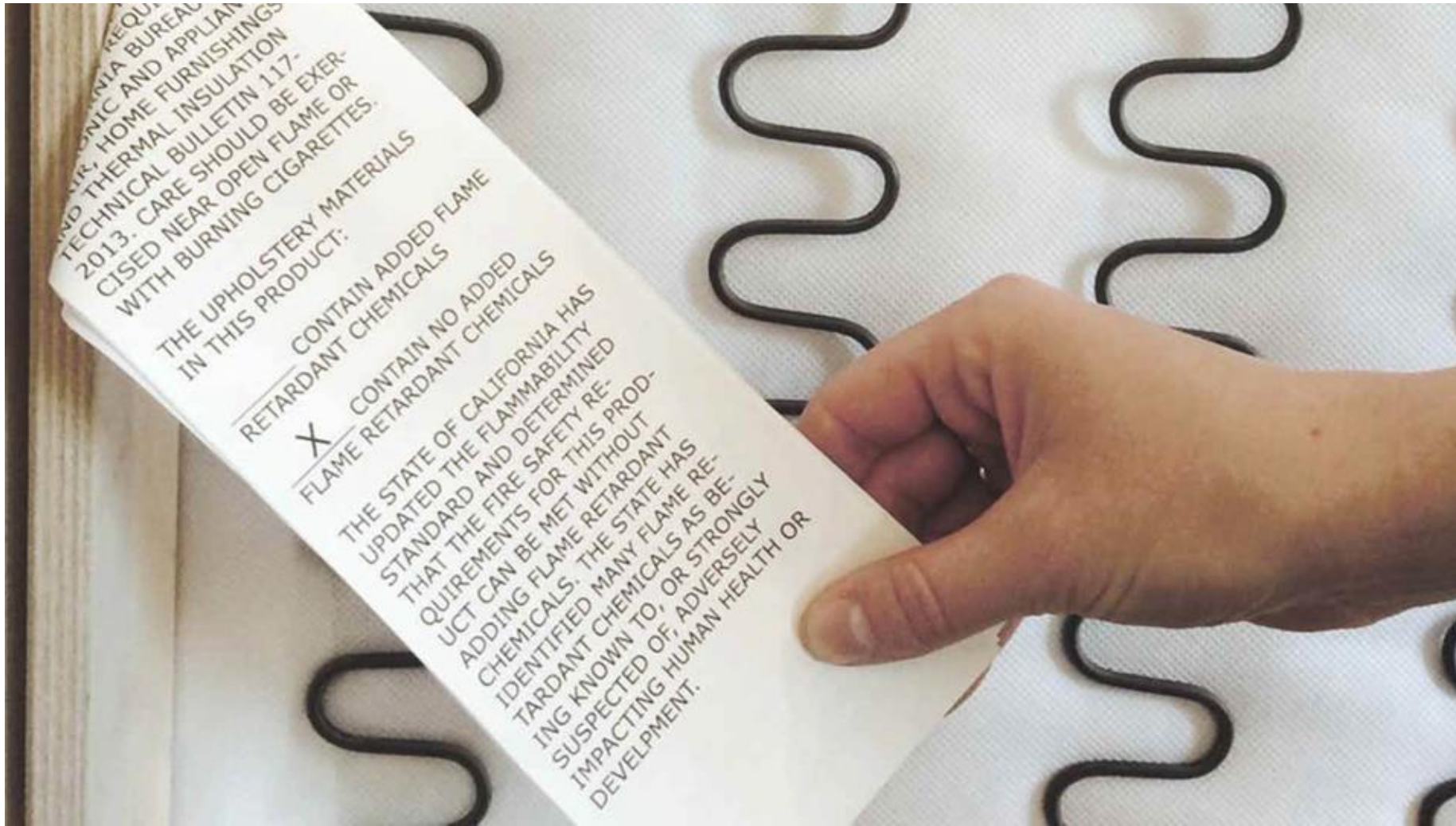
Addresses leading cause of fires

Reflects real life fire scenarios

Can meet with smolder proof fabrics and barrier if needed

TB 117-2013:

Can Be Met Without The Use Of Flame Retardant Chemicals



Policy Win

Removal of TB 133: 1/22/2019

State of California Office of Administrative Law

In re:
Bureau of Electronic and Appliance Repair,
Home Furnishings and Thermal Insulation

Regulatory Action:

Title 04, California Code of Regulations

Adopt sections:

Amend sections: 1374, 1374.3

Repeal sections:

AMENDED NOTICE OF APPROVAL OF
REGULATORY ACTION

Government Code Section 11349.3

OAL Matter Number: 2018-1210-03

OAL Matter Type: Regular (S)

This action by the Bureau of Electronic and Appliance Report, Home Furnishings and Thermal Insulation amends furniture flammability standards by removing requirements of Technical Bulletin 133, entitled "Flammability Test Procedure for Seating Furniture For Use in Public Occupancies," dated 1991.

OAL approves this regulatory action pursuant to section 11349.3 of the Government Code. This regulatory action becomes effective on 1/22/2019.

Unsprinklered public
occupancy buildings
may need to meet
ASTM E1537



ASTM INTERNATIONAL





FEDERAL REGISTER

The Daily Journal of the United States Government



Standard for the Flammability of Upholstered Furniture

A Rule by the Consumer Product Safety Commission on 04/09/2021

**Mandated National
Compliance with TB 117-2013
Beginning June, 2021**

<https://www.federalregister.gov/documents/2021/04/09/2021-06977/standard-for-the-flammability-of-upholstered-furniture>

- Smoldering ignition test for upholstery fabric
- Flame retardants not needed (but not prohibited)
- Improves fire safety by stopping smoldering materials before they can ignite the foam

We Have Made Tremendous Gains...

- ✓ Congress has adopted a national smolder flammability standard
- ✓ Standard addresses major cause of fires and can be met without use of FR chemicals
- ✓ When FRs are removed from people's environments, their body burdens are reduced
- ✓ CA has repealed TB 133



Why Are Efforts Underway To Bring Back An Open Flame Test?



Judy Levin, MSW

Center for Environmental Health

judy@ceh.org

www.ceh.org

Tonya Corcoran

Assistant Director/Deputy Bureau Chief

California Bureau of Household Goods and Services (BHGS)

Contact Information: 916.999.2080 Tonya.Corcoran@dca.ca.gov



2012 to 2014 - Appointed by former Governor Edmund J. Brown and served as Bureau Chief

2014 to 2017 - Deputy Director, Department of Consumer Affairs

2017 to Present - Deputy Registrar, California Contractors State License Board

July 29, 2021 - On loan to BHGS until a new Bureau Chief is appointed.

Topics of Discussion

- ❑ Background
- ❑ Regulatory Rulemaking Process and Findings: TB 117-2013
- ❑ Barrier Study and Cost Benefit Analysis
- ❑ Assembly Bill 2998 (Bloom, Chapter 924, Statutes of 2018)
- ❑ Combined Label Requirement: 16 CFR part 1640 TB 117-2013

Background: California Upholstered Furniture Flammability Standard

Bureau communicates flammability standards in the form of Technical Bulletins. The standards are designed to limit or slow the propagation of fire and provide an opportunity for detection and escape.

- ▶ **1972:** Assembly Bill 2165 (Burton) signed requiring the Bureau to establish upholstered furniture flammability standards
 - ❖ Required all upholstered furniture sold in California be fire retardant, as defined by the Bureau, and labeled accordingly.
- ▶ **1975:** TB 117 developed/adopted
 - ❖ Open flame testing standard of interior filling materials.
- ▶ **June 2012:** Governor Brown directed the Bureau to review the flammability standard to reduce use of toxic flame retardants and ensure fire safety

Regulatory Rulemaking Process: TB 117-2013

- ❑ Initial/Final Statement of Reasons
- ❑ Public Comment
 - ✓ Workshops
 - ✓ Stakeholders Meetings
 - ✓ Public Hearings
- ❑ Studies and Data Relied Upon
- ❑ Cost Benefit Analysis
- ❑ Precision and Bias Study
- ❑ California Environmental Quality Act (CEQA) Evaluation

Regulatory Rulemaking Findings: TB 117-2013

Bureau 2013 Findings:

- ▶ TB 117 open flame test of interior filling materials did not adequately address the flammability performance of the upholstery cover fabric nor address its interactions with the underlying filling materials whether by open flame or smoldering source.
- ▶ Flame retardant foam can actually increase smolder propensity.
- ▶ CPSC concluded that upholstery cover fabrics play a more important role in fire behavior performance than filling materials.
- ▶ In 2013, California was the only state with a mandatory flammability standard for residential furniture. National fire incidents related to upholstered furniture had dropped by 80 percent since the standard was adopted. The decrease may be attributed to the following:
 - ❖ Child resistant lighters
 - ❖ Self-extinguishing cigarettes
 - ❖ Furniture manufacturers compliance with voluntary upholstered furniture flammability standards
 - ❖ Candle industry compliance with voluntary fire-safe candle standards
 - ❖ Residential smoke alarms and fire sprinkler requirements
- ▶ Bureau to conduct a two-year barrier study

2018 Barrier Study and Cost Benefit Analysis

BUREAU: 2018 Barrier Study

- ❑ Proposed Standard: Bench-Scale Open Flame Barrier Test
- ❑ Summary Report of Barrier Research
- ❑ Cost Benefit Analysis - Prepared by CSUS
- ❑ August 2018 Advisory Council Meeting

CALIFORNIA STATE UNIVERSITY, SACRAMENTO (CSUS): Cost Benefit Analysis

- ❑ **CSUS Report:** A Benefit Cost Analysis on the Use of Fire Barriers in Upholstered Furniture.
- ❑ **Conclusion Summarized in Report and PowerPoint Presentation:** It does not support the adoption of the bureau proposed fire barrier standard.

❖ www.bhgs.dca.ca.gov/bureau_activities/index.shtml

CSUS: Cost Benefit Analysis

*** Table 1. Combined Upholstered Furniture Fire Scenarios for Residential Buildings in California**

Year	Incident Count	Property Loss ¹	Content Loss ¹	Civilian Injuries	Civilian Fatalities
2010	20	\$1,150,949	\$205,647	1	0
2011	31	\$1,279,238	\$553,167	8	1
2012	17	\$468,183	\$82,977	1	0
2013	28	\$1,345,063	\$520,045	0	0
2014	12	\$987,017	\$302,672	0	0
2015	13	\$379,574	\$101,570	0	1
2016	13	\$510,963	\$159,900	2	0
Average	19	\$874,427	\$275,140	2	0

Valuations are in constant 2017 dollars

Data Source: National Incident Reporting System Data

*See: Slide 7 CSUS Cost Benefit Analysis PowerPoint Presentation

❖ www.bhgs.dca.ca.gov/bureau_activities/index.shtml

Assembly Bill 2998

- ▶ AB 2998 (Bloom, Chapter 924, Statutes of 2018)
- ▶ On or after January 1, 2020 - Prohibits flame retardant chemicals at levels above 1,000 parts per million in California for the following covered products:
 - ❖ Juvenile products
 - ❖ Upholstered furniture
 - ❖ Foam in mattresses
- ▶ Authorizes the Bureau to issue a fine for non-compliance
- ▶ FAQ's: www.bhgs.dca.ca.gov/forms_pubs/ab2998_faq.pdf

TB 117-2013 Combined Label Example

What are the labeling requirements?*

Under 16 CFR part 1640, upholstered furniture subject to the standard must have a permanent label with the language: "Complies with U.S. CPSC requirements for upholstered furniture flammability." CPSC staff recommends that the certification statement be conspicuous and legible. The statement should be at least 1/8-inch high and not smaller than other text on the label; it should be in black text on a white background and surrounded with black border. The label may be a separate label, or it can be added to the bottom of an existing California TB 117-2013 label required by [SB-1019](#). The required statement must appear on the front of the label in English and cannot be on the back side. However, additional languages may be on the back side of the label.

- ❖ [Bureau of Household Goods and Services - FAQ for Technical Bulletin 117-2013](#)
- ❖ BHGS Contact: Sue Xu at Sue.Xu@dca.ca.gov

Separate Label



Combined Label





GREEN SCIENCE
POLICY INSTITUTE

Are furniture fires increasing or decreasing?

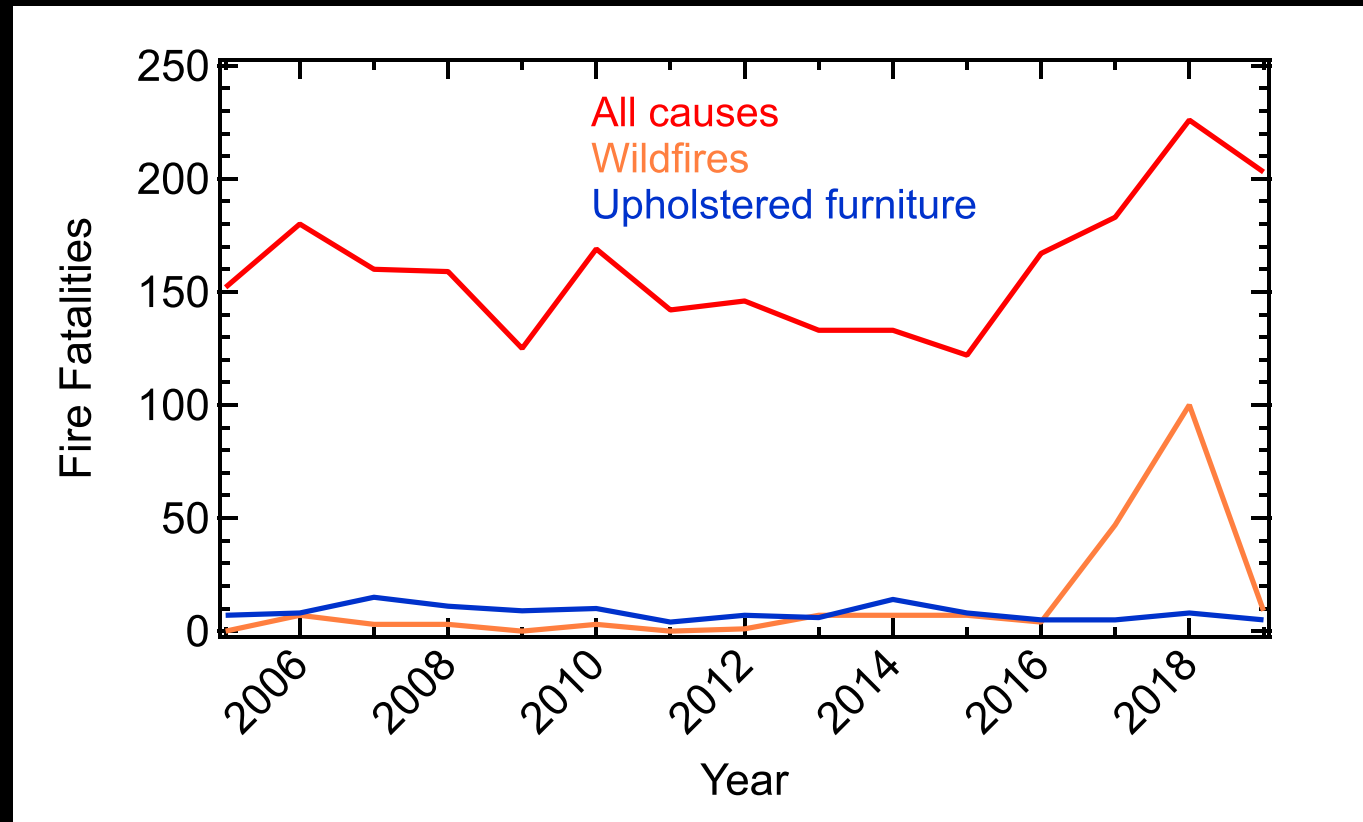
Good news & addressing false claims

Lydia Jahl, PhD
Green Science Policy Institute
October 19, 2021

Are fire deaths increasing in California?

Claim: Fire deaths have increased since California updated its furniture flammability standard in 2014.

Fact: Increases are due to wildfires, not fires originating in upholstered furniture.



Fire deaths are decreasing across the US

- Decrease of 50% in home fire deaths since 1980
- < 10 fire deaths per year in educational, healthcare, or detention facilities
- Most fires start in kitchens or cooking areas
- Smoking materials are still a major contributor to fire deaths
- Sprinklers greatly improve fire safety



Nearly 3 out of every 5 home fire deaths were at homes with missing or malfunctioning smoke alarms.

Are newer flame retardants safer?

Claim: Harmful flame retardants (e.g. PBDEs) are not in use anymore; their replacements are safe.

Facts:

- Similar halogenated flame retardants are still in use
- Newer replacements have similar health harms and are increasingly being found in dust and in us

Flame retardants should be proven safe and effective before they are used.
Adding flame retardants removes products from the circular economy.

Conflicts of interest?

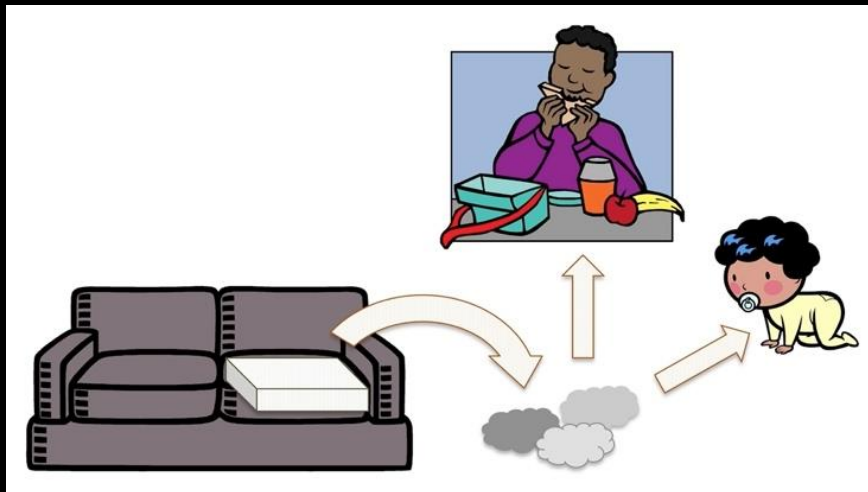
Flame retardant manufacturers & testing labs

- “It is safest to meet both an open flame AND smolder standard”
- Furniture barriers *can* be effective, but:
 - Flame retardants are a less expensive way to meet open flame standards
 - Barriers are difficult and costly to make



What is the impact of flame retardants in furniture?

- No overall fire safety benefit of adding flame retardants
- Flame retardants can migrate out of furniture
- People in areas with open flame standards have higher blood levels of toxic flame retardants



- Exposure associated with cancer and neurological, reproductive, immune, & developmental problems

***PURCHASING FIRE-SAFE
HEALTHIER FURNITURE
(What questions should be
considered?)***

Joseph Fleming

IAFF

(Former Fire Marshal, Currently a
Deputy Chief - BFD)

“AMERICA BURNING” - 1972

The hazards of flames have been studied and regulated to some extent, but recognition of the hazards of smoke and toxic gases has come belatedly. Ironically, efforts to make materials fire-retardant may have increased the life hazard, since the incomplete combustion of these materials often results in heavy smoke and toxic gases.

WHAT HAPPENED?

“ANALYZING THE EFFECTIVENESS OF FIRE PROTECTION STRATEGIES”

NFPA FIRE JOURNAL, 1979

“Two alternative strategies for reducing the nation’s fire losses were reviewed here. They are mandatory standard for upholstered furniture, and 2) a smoke detector requirement for all residential households.

The results indicate that the smoke detector requirement is a cost effective strategy, in contrast to the proposed mandatory standard for upholstered furniture.”

A COST-BENEFIT ANALYSIS ON REGULATING FOR FIRE RETARDANTS IN FURNITURE

NZIER Report 26, September 2019

Fire-retardant foam is often designed to pass a test involving a small ignition source, such as a cigarette, and can be ineffective if the ignition source is larger (Blum 2019). Other research also indicates that, once on fire, furniture treated with fire retardants produces more toxic smoke than untreated furniture (McKenna et al. 2017), and smoke is one of the main causes of fire-related deaths (Lilley, McNoe and Duncanson 2018). Furthermore, only some fires begin on foam furniture. Foam furniture is not listed as a common first ignited material in research on house fires, suggesting that fewer than 3% of fires begin this way

COSTS AND BENEFITS OF REGULATING FIRE SAFETY FURNITURE IN NZ BRANZ, MARCH 2003

They ran computer models of residential fires.

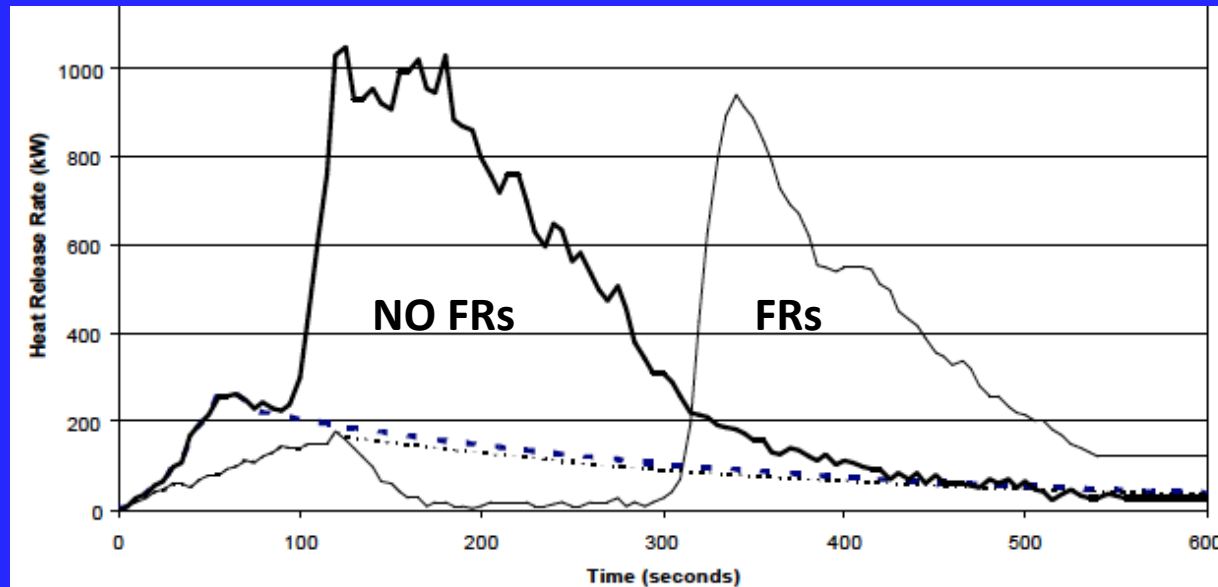


Figure 5-3. Simulated Heat Release Rate of single-seater chairs constructed of standard polyurethane foam with polypropylene cover (L21) and of fire-retardant polyurethane foam with wool cover (J22), by time.

FRs and Wool Covering may delay flashover but ...

DATA FROM NZ STUDY

Table 5-1. Chair L21 (standard polyurethane foam with polypropylene cover), no sprinkler

	Time to untenable condition (sec)		
Tenability Criterion	Lounge 4	Hall 1	Bed 2
Visibility < 2 m @ 2 m above floor	35	50	80
FED inc (gases)	>600	>600	>600
FED inc (rad)	140	250	>600
Smoke alarm activation time	20	35	45

ASET = 15 secs (35-20)

Table 5-3. Chair J22 (fire-retardant polyurethane foam with wool cover), no sprinkler

	Time to untenable condition (sec)		
Tenability Criterion	Lounge 4	Hall 1	Bed 2
Visibility < 2 m @ 2 m above floor	25	55	90
FED inc (gases)	>600	>600	>600
FED inc (rad)	360	>600	>600
Smoke alarm activation time	13	29	47

ASET = 12 secs (25-13)

Heat Flux Limit is delayed by FRs

Visibility Limit reached 10 seconds earlier

FRs may reduce the Heat Release Rate growth rate but they may also produce more smoke quicker causing occupants to be trapped earlier.

DATA FROM NZ STUDY

Table 7-1. Expected scenario outcomes at maximum effectiveness

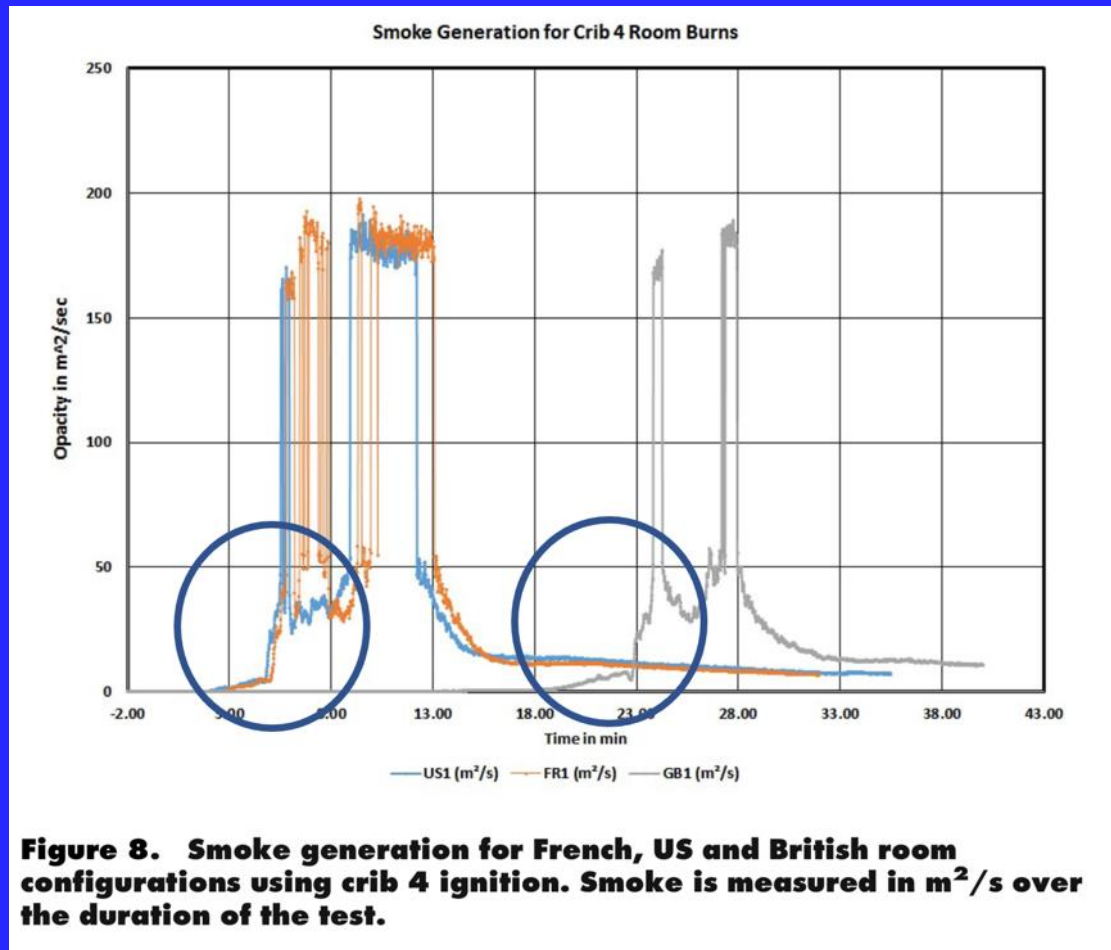
Scenario	Expected No. deaths	Expected No. injuries	Expected property loss \$	Expected NZFS costs \$	Lives saved	Injuries prevented	Property saved \$	NZFS costs averted \$
1 Base case (status quo)	22	249	73.01 m	25.83 m	0	0	0	0
2 Furniture regulation	15	174	70.60 m	24.98 m	7	75	2.41 m	0.85 m
3 Smoke alarms regulation	13	152	53.84 m	25.83 m	9	97	19.17 m	0
4 Furniture + smoke	9	106	52.07 m	24.98 m	13	143	20.94 m	0.85 m

Most of the benefit is achieved with smoke alarms. The New UL217 Alarms should be more effective than assumed here.

Why not try the less expensive option that may prove to be more effective at reducing fire risk and safer for health.

Comparative Room Burn Study of Furnished Rooms from the UK, FR and the US

NFPA Fire Technology (March 2020)



The smoke production is almost identical, although delayed in the “British (FR) Room. Similar to the NZ data it may produce similar ASET (Available Egress Times), thereby producing no benefit for sleeping occupants. (In this study no smoke alarms. were used.)

THERE MAY BE MULTIPLE RISK/BENEFIT DECISIONS

- For upholstered furniture, in which the health exposure is great and the fire benefit is low or zero, the answer is likely NO FR.
- To protect fire alarm wiring inside the walls of a high rise building which the exposure is low and the fire benefit is high, the answer may be USE FR.
- For airplanes, some material may justify the use of FR and for passengers the exposure is infrequent, but what about crew and staff?

**A fire safety benefit in a few cases does not
imply a fire safety benefit in all cases**



BIFMA

The North American Furniture Trade Association

Steve Kooy

Technical Director Health and Sustainability

BIFMA

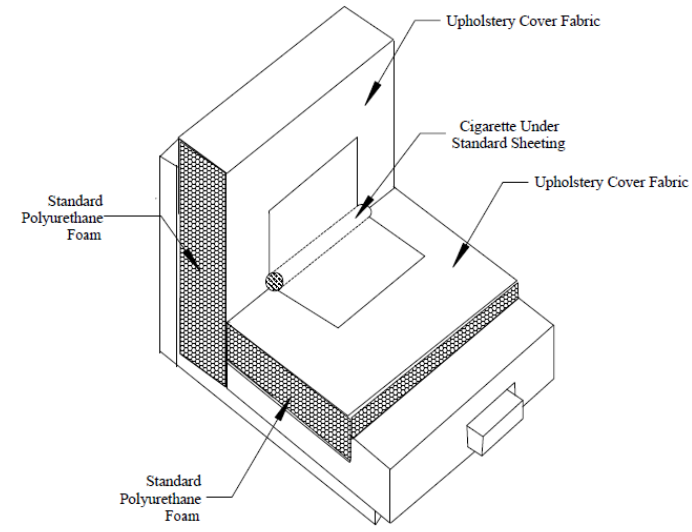
BUSINESS + INSTITUTIONAL FURNITURE
MANUFACTURERS ASSOCIATION

Two Tests – Two Impacts



Open Flame (TB133)
~80 second burn

Figure C-2. Mock-up Assembly for Smoldering Ignition Resistance Test of Upholstery Cover Fabrics



Smolder (TB117)
Cigarette burns full length

Barrier Concerns

- Fire fighters suggest extra FR chemicals create more problems
- Toxicity concern
- Reduce performance and comfort
- Increase costs
- Fire Statistics, especially commercial / public spaces do not justify the need

SOFFA Act

- Safer Occupancy Furniture Flammability Act (SOFFA) part of the December 2020 omnibus bill
- Renamed the “COVID-19 Regulatory Relief and Work From Home Safety Act”
- **Instructs the Consumer Product Safety Commission (CPSC) to establish conformance to California TB117-2013 as a national standard.**
- June 25, 2021: TB117-2013, is THE flammability standard
- **Compliant Labeling Required: June 25, 2022,**
 - **Applies to upholstered furniture manufactured, imported, or reupholstered on or after that date.**

NOTICE

THIS ARTICLE MEETS THE
FLAMMABILITY REQUIREMENTS OF
CALIFORNIA BUREAU OF HOUSEHOLD
GOODS AND SERVICES TECHNICAL
BULLETIN 117-2013.

CARE SHOULD BE EXERCISED NEAR
OPEN FLAME OR WITH BURNING
CIGARETTES.

THE UPHOLSTERY MATERIALS IN THIS
PRODUCT:

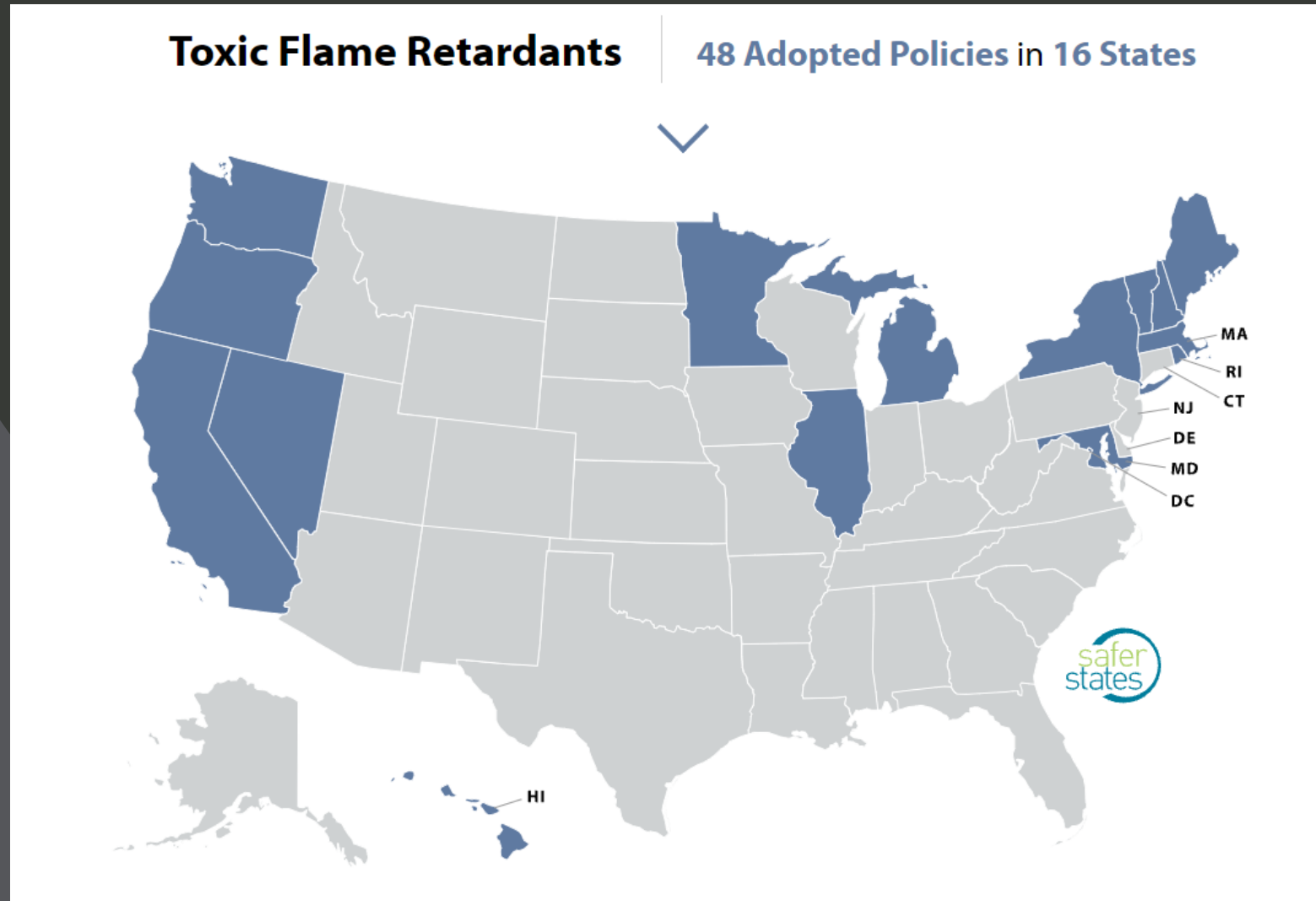
____ CONTAIN ADDED FLAME
RETARDANT CHEMICALS

____ CONTAIN NO ADDED FLAME
RETARDANT CHEMICALS

THE STATE OF CALIFORNIA HAS
UPDATED THE FLAMMABILITY
STANDARD AND DETERMINED THAT
THE FIRE SAFETY REQUIREMENTS FOR
THIS PRODUCT CAN BE MET WITHOUT
ADDING FLAME RETARDANT
CHEMICALS. THE STATE HAS
IDENTIFIED MANY FLAME RETARDANT
CHEMICALS AS BEING KNOWN TO, OR
STRONGLY SUSPECTED OF,
ADVERSELY IMPACTING HUMAN
HEALTH OR DEVELOPMENT.

Complies with U.S. CPSC requirements
for upholstered furniture flammability

Legislation



Source: Safer States

Business Office Fires

- California: “A security and alarm monitoring company employee was using a torch to heat illegal drugs in his second-floor office workstation when he inadvertently ignited combustibles on his desk.”
- Michigan: “A 39-year old man was killed in a cigarette fire in a church. The man ... had been living temporarily in one of the offices. The fire began when a cigarette ignited rubbish in a trash can in a first floor coat room.”
- There are extremely few deaths in Business Offices and the presenter did not find any examples where a chair was involved in a fatality

U.S. Structure Fires in Office Properties. NFPA (August 2013)

LEVEL® by BIFMA

- e3 Furniture Sustainability Standard
- 3rd Party Certification
- LEVEL® Registry of Certified Products

Aligned with



LIVING
BUILDING
CHALLENGE



Targeted Chemical Elimination (7.4.4)

Restrictions & Public Disclosures to:

- Flame retardants

Does Not Contain:

- Per- & poly- fluorinated compounds ≥ 100 ppm
- Chemical antimicrobials*
- Triclosan & triclocarban

Contains:

- Less than 1% polyvinyl chloride (PVC) by weight

Formaldehyde & other VOCs

- Low-Emitting Furniture aligned with LEED & WELL



The background features a technical diagram of a human figure in a side profile, illustrating various reach and posture ranges. Key elements include: a vertical line for 'Elbow Reach' at 45 cm and 'Wrist Reach' at 70 cm; a 'Comfort Range' indicated by a bracket; and several angular measurements such as 10°, 0°, 34°, 62°, 98°, 115°, 15°, 142°, 181°, 51°, 45°, 30°, and 2°. Shaded regions represent specific ranges of motion or comfort. The diagram is rendered in a light red color on a darker red background.

BIFMA

Steve Kooy
Director Health & Sustainability
skooy@bifma.org



SF Environment

Our home. Our city. Our planet.

A Department of the City and County of San Francisco

Eliminating Flame Retardants in Furniture

Jen Jackson, Toxics Reduction Program Manager



We know flame retardants are harmful to us...



Health Concerns

- Disrupt hormones
- Disrupt brain development
- Disrupt learning, memory and attention
- Lower IQ
- Cause reproductive issues
- Cancer

Environmental Concerns

- Persistent
- Bioaccumulative



...and firefighters face even greater risks...



Increased risk of:

- Multiple myeloma
- Non-Hodgkin's lymphoma
- Prostate and testicular cancer
- Breast cancer



yet we need fire safety.



False dilemma?



Another choice...



“TB 117-2013 addresses the predominant source of upholstered furniture fire deaths and injuries which are smoldering materials. Further, TB 117-2013 addresses the flammability performance of the upholstery cover fabric which is where fires begin, whereas the current standard predominantly focuses on open flame testing of filling materials...”

- CA Bureau of Household Goods and Services



SB1019 Labeling Requirement



NOTICE

THIS ARTICLE MEETS THE FLAMMABILITY REQUIREMENTS OF CALIFORNIA BUREAU OF ELECTRONIC AND APPLIANCE REPAIR, HOME FURNISHINGS AND THERMAL INSULATION TECHNICAL BULLETIN 117-2013. CARE SHOULD BE EXERCISED NEAR OPEN FLAME OR WITH BURNING CIGARETTES.

The upholstery materials in this product:

☐ contain added flame retardant chemicals
☒ contain NO added flame retardant chemicals

The State of California has updated the flammability standard and determined the fire safety requirements for this product can be met without adding flame retardant chemicals. The State has identified many flame retardant chemicals as being known to, or strongly suspected of, adversely impacting human health or development.



Retailer Pledge Campaign



Breathe easy.



Safer couch, happy customer.

Help your customers breathe easy by offering furniture without flame retardant chemicals.

Get listed as a business offering furniture without flame-retardant chemicals.

Local Ordinance Banning FRs in Furniture - 2017

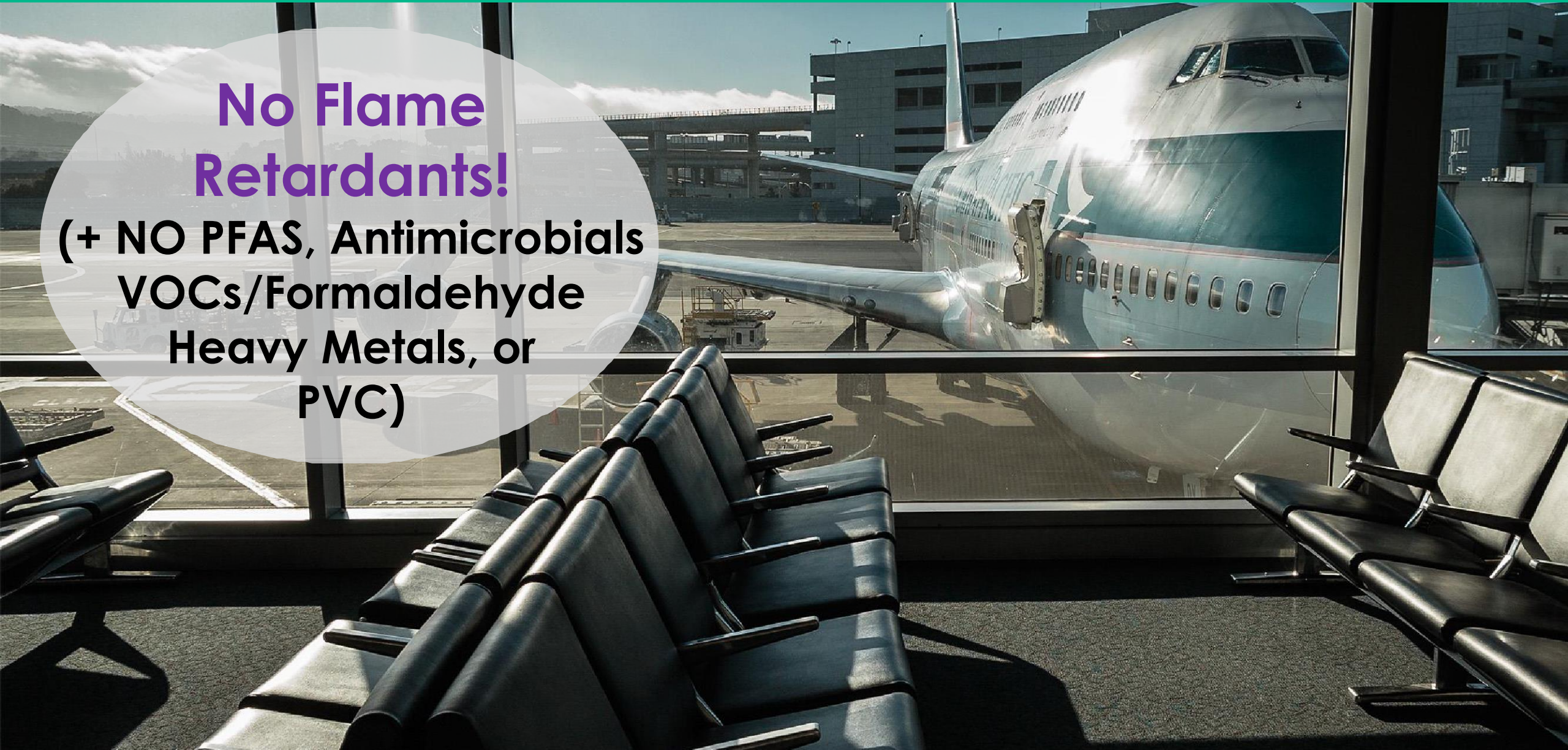


2020 Citywide Furniture Regulations



**No Flame
Retardants!**

**(+ NO PFAS, Antimicrobials
VOCs/Formaldehyde
Heavy Metals, or
PVC)**



Tools and Resources for Purchasers



SF APPROVED
Use less, buy the right thing

Search batteries, cleaners, LED lights



Browse



Enter your search term

[Advanced Search](#)

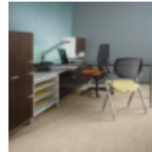


[about](#)

Furniture: Upholstered

filter by: ☒ Industrial ☒ Consumer

☒ Required [?](#)



CEH Healthier Upholstered Furniture & Fabric Guide (Office & Healthcare)

Less-toxic fabric, seating, desks, tables, workstations (systems furniture and accessories), and storage (case goods) compiled by Center for Environmental Health (CEH).

Manufacturer(s)

[See products](#)

City Approved Vendor(s)

[Sam Clar Office Furniture](#)

Product/Service Type

Consumer, Industrial

[More information](#)



Upholstered Furniture Certified Under BIFMA LEVEL e-3-2019 Credit 7.4.4

To identify a compliant product, click "see products" to the left. Then check the product certificate to see if it received credit 7.4.4:

level



GreenScreen Certified Products

Manufacturer(s)

[See products](#)

Product/Service Type

Industrial

Tools and Resources for Purchasers



Regulation #SFE-13-06-PPO

Approved Alternative Products for: Furniture (Upholstered)

PURCHASING REQUIREMENTS FOR CITY DEPARTMENTS

1. **Upholstered furniture**, including fabrics used for the upholstery and reupholstery, must comply with restrictions on the following chemicals of concern. Upholstered furniture products that comply with these restrictions can be identified by consulting the Center for Environmental Health's "Guide to Healthier Office Furniture," ceh.org/products/office-furniture. Any furniture that meets the GreenScreen Certified standard for Furniture and Fabrics Version 1 or higher at the Bronze level and is listed on the GreenScreen Furniture and Fabric Certification list of certified products is considered compliant with these specifications. Salvaged and refurbished furniture more than one-year old at the time of reuse is also considered compliant, provided any site-applied paints, coatings, adhesives, and sealants meet the following requirements.

These criteria are incorporated into the ANSI/BIFMA e3-2019 Furniture Sustainability Standard, as credit 7.4.4 Targeted Chemical Elimination. Meeting this ANSI/BIFMA credit is considered equivalent to meeting these specifications.

Healthier Furniture



A Guide for Purchasing Furniture Free of the Hazardous Handful Chemicals

Last updated
10/12/2020

The Center for Environmental Health (CEH) created this guide to help furniture purchasers identify safer furniture and fabrics without key chemicals of concern.

The products in this document have been self-reported by the manufacturer as being compliant with restrictions for the following chemicals/materials of concern (aka the "Hazardous Handful"):

- Formaldehyde and other Volatile Organic Compounds (VOCs) emissions
- Antimicrobials
- Flame retardant chemicals
- Polyvinyl chloride (PVC)
- Per- and poly-fluorinated chemicals used as stain/water/oil resistant treatments

Furniture products are listed on sheet/tab 2 and fabrics are listed on sheet/tab 3.

+ Category

Product Name (A-Z) ▼

+ Subcategory

Search products by name, brand, category



0 Sustainability Criteria

1 - 18 of 914 results

- ☒ Material Chemistry
- ☐ Bio-based Renewable Materials
- ☐ Extended Product Responsibility
- ☐ Life Cycle Assessment
- ☐ Low Emitting
- ☐ Recycled Content

- LEVEL

- ☐ LEVEL 1 (163)
- ☐ LEVEL 2 (655)
- ☐ LEVEL 3 (96)

+ Brand

+ Certifier

- Rating Systems

USGBC
IWBI™
ILFI™
GBI



Allsteel Inc.

#19@

Category Seating
Subcategory Conference/Executive

add to ▼

documentation



Spec Furniture

2000 Series Seating

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Nightingale Corporation

24/7hd High Back Intensive Task

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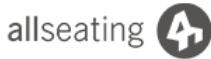


Seating

(chairs, stools, sofas, benches, recliners, loungers, etc.)

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Thank you!



Jen Jackson

Toxics Reduction Program Manager

SF Department of the Environment

(415) 355-5005

jen.jackson@sfgov.org



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Speaker Contact Information

Judy Levin

judy@ceh.org

Tonya Corcoran

Tonya.Corcoran@dca.ca.gov

Lydia Jahl

lydia@greensciencepolicy.org

Joseph (Jay) Fleming

jfireeng@gmail.com

Steve Kooy

skooy@bifma.org

Jen Jackson

jen.jackson@sfgov.org

Thank you for your participation!