The Furniture and Furnishings (Fire) (Safety) Regulations 1988

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FFRs in Europe

• Generally not allowed because they’re a barrier to EU trade
• However, the EU Treaty allows exceptions on safety grounds
• Member State has to prove it has a safety case to answer: UK national statistics for deaths in furniture fires convinced
Why UK Furniture Flammability Regulations introduced

• Deaths from UK home fires deaths rose from 400 per year at the start of 1960 to 700 by the end of the decade; further increases in the 1970s
• In all: pre-88 – Furniture 7.5% of home fires but 35% of deaths
• PU foam seen as main contributor to rise
• Woolworth’s store fire 1979, 10 killed – trigger
• Government lobbied by MPs, fire services, media to introduce flammability provisions
• No European provision
Early UK Furniture Flammability legislation

• The Upholstered Furniture (Safety) Regulations 1980 – optional match and cigarette test; then

• The Upholstered Furniture (Safety) (Amendment) Regulations 1983 – compulsory cig, optional match test
The Furniture and Furnishings (Fire) (Safety) Regulations 1988

• Compulsory cigarette test
• Compulsory match test over PU foam
• Compulsory fillings (‘crib 5’) test
• Compulsory labelling requirements
• Tests based on BS 5852 1979 & 1982
• Requirements prescriptive - not up to supplier to decide ‘safe’ (as in GPSR)
• Minor amendments in 1989, 1993, 2010
The ‘Crib 5’ Test

- Unique to UK and Ireland (EU has similar Match/Cigarette tests)
- For fillings
- Large ignition source – wooden crib (Scots pine) with crumpled paper, over test cover fabric
- Failure: flame after 10 mins; smoke or heat after 60 mins
- Argument: it’s not a direct ignition source vs. it replicates life and it works!
FFRs apply to

Upholstery – cover fabrics and fillings:
• Intended for home use
• Mattress fillings
• Nursery and Children's furniture
• Garden furniture suitable for indoor use
• Furniture in new caravans
• Fillings of scatter cushions, seat pads and fillings
Current review of FFRs

- Universal UK support – all political parties, industry, enforcement, fire services, consumers
- But not amended for over 20 years despite UK policy to review every 3-5 years: officials felt they were working well enough
- Stakeholder pressure on gov. to amend, and clear growing need to update, led to decision to review
- New statistical report first step - Dec 2009
Greenstreet Berman Report 2009

Summary, 2002-2007:
• 54 fewer deaths per year
• 780 fewer non-fatal casualties per year
• 1,065 fewer fires each year.

More at:
http://www.bis.gov.uk/files/file54041.pdf
Current review of FFRs (con.)

Reasons to review:

• Consultation on FFRs’ guidance revealed many areas that need updating
• New products in or out of scope? e.g. mattress toppers
• Testing becoming more difficult, e.g.
  - finding cigarettes for the cigarette test
  - test cover fabric (separate amendment needed)
• Enforcement more difficult: safety threatened
• Grey areas, e.g. overlap with non-domestic fire law
Current review of FFRs (con.)

Improvement aims:
• Simplify and rationalise
• Maintain current safety levels
• Reduce levels of FR chemicals in furniture (introduce alternative match test)
• Save money for industry, e.g. exclude most fabrics from cigarette test (because they’ve never failed)
• Long term: possibly revoke when EU is equivalent (European Commission supportive)
1) Ministerial decision to review

BIS officials put the case (with evidence from the GSB report) to their Minister, using stakeholder input. This time, case was based on the need to update, and that in doing so money would be saved. Minister agreed on basis that current safety levels would be maintained.
FFRs amendment process

2) BIS set up working groups - stakeholders invited to form groups advising on 3 areas of the review:
   - Testing
   - Traceability
   - Scope

Industry, enforcement authorities, test house experts all contributed in an open process
FFRs amendment process

3) Delays, e.g. The Red Tape Challenge:

- New government’s drive to cut regulation
- BIS had to prove case for keeping FFRs
- Affects future: industry cost savings priority
4) Drafting the amendments

BIS convened group of test experts to draft new testing requirements: all now in regulations, i.e. no standards
Changes to match/cigarette tests

- BIS intends to bring forward a new match test and amendment to the cigarette test – implementing in April 2015; lead-in time to be announced after industry feedback but likely to be around 18 months later; also time allowed for sale of old stock.
Benefits of new tests

• Possible reduction in flame retardant chemicals in cover fabrics by up to 50%

• Should improve fire safety

• Elimination of the cigarette test for any fabric which passes the match test

• Possible savings to industry of around £30-50m per year (rough estimate)
Reasons for new match test

1. **REDUCES FR USE:**
   - Growing evidence and consumer concern about the effects of BFRs on health/environment, bolstered by awareness of change to California standard
   - Helps the UK’s/Commission’s aim to raise EU standards

2. **REDUCES REGULATORY BURDEN/SAVES COSTS:**
   - Red Tape Challenge averted on basis of making costs-savings/simplifying Regulations

3. **IS A ‘REAL LIFE’ TEST:**
   - Current test criticised by other Member States for not being a real life test
Additional benefits of new match test

• Is more consistent than the current test which is very sensitive for some types of cover fabric
• Will include currently unregulated parts of e.g. sofas – safer product overall, but there will be a list of exemptions for materials which will definitely pass and those placed under fabric which does not form a hole.
• Should remove the problem of insufficient FR treatment – currently possible due to perceived ‘margin’ of current test
• Will solve current problem of some fabrics passing the laboratory test but failing in final product
• Help with re-enlisting EU support for UK levels
New test – timetable

- April 2012: initial input from test houses and FIRA
- 2012/13: BIS/Intertek working on test; BIS consulting a whole range of experts
- July 2013: discussion paper circulated
- Feb 2014: informal consultation
- Aug 2014: formal consultation/notification to Commission
- Oct 2014 approx: government response to consultation
- April 2015: implementation
- Oct 2016 approx: into force
Future aims

- Encourage industry take-up of alternative match test, greener chemicals, inherently FR fibres
- Continue to work with European Commission to rationalise fire safety across Europe
- Investigate new technologies that could reduce FR use further, e.g. barrier technology
Technical Details of Changes

• Removal of the invisible linings cigarette resistance test.
• Removal of the visible cigarette resistance test for covers which are match resistant.
• Regulation of lining fabrics which are directly behind the visible cover by incorporation into the new visible covers test. (With the exemption of non-woven polypropylenes with weights of less than 90g/m² eg. Corovin)
• Regulation of materials within 40mm of the visible cover by means of a modified version of the match test subject to the absence of protective materials.
Technical Details of Changes

• Match resistance will be established by testing over two possible types of filling:

• Filling 1: Combustion modified polyurethane foam, as in the current test foam required for Schedule 5 Part 3.

• Filling 2: Combustion modified foam, as in the current test foam required for Schedule 5 Part 3, plus 200 g/m2 thermally bonded sheet polyester fibre compliant with Schedule 2 Part 1 but is not treated with a flame retardant.
Technical Details of Changes

• Covers which will be used over foam directly require testing over Filling 1.
• Covers which will be used over any other filling or where no filling is present require testing over Filling 2.

• Where a cover with a lining fabric directly behind it is used the visible cover in conjunction with the lining fabric shall be tested together over the appropriate filling.
• Covers which meet the composition requirements of being >75% by weight of cotton, flax, viscose, modal, silk or wool, used separately or together and not coated with polyurethane or a polyurethane preparation need not be tested in conjunction with the lining fabric.
Technical Details of Changes

- Type 1 covers (can be used with Schedule 3 Interliners)

Flowchart:

1. Match Test Filling 1 (CMPU)
   - Fail
   - Match Test Filling 2 (CMPU + Poly)
     - Fail
     - May not be used
   - Pass
     - Composite Cigarette Test
       - Fail
       - Unregulated components close to the cover need not be considered
       - May be used in Filling 1 situations with or without a lining fabric
     - Pass
       - May be used in conjunction with a Schedule 3 Interliner
       - Unregulated components close to the cover need not be considered
       - Unregulated components need modified match test
       - Yes
         - Unregulated components close to the cover need not be considered
       - No
         - Is the cover and/or lining fabric protective
           - Yes
             - Unregulated components close to the cover need not be considered
           - No
             - Unregulated components need modified match test
Technical Details of Changes

- Type 2 Covers (Cannot be used with Schedule 3 Interliners)
- If a lining fabric is used which is not exempt then the cover must be tested in conjunction with the lining fabric
Technical Details of Changes

- Unregulated Internal Materials Within 40mm of the Visible Cover for instances where the cover and lining are not protective
Further information

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