Terry

**PROPOSED CHANGES TO THE FURNITURE REGULATIONS CONCERNING PROTECTIVE COVERS**

As promised to you and [the Grade 3], this note sets out the background and reasoning for the team’s proposal to the Minister that we simplify the new match test as regards protective covers, and our understanding of the implications that could arise from this change.

I think it’s important to clarify first what the original proposal was: and what we are now proposing.

**What was the original 2014 proposal?**

In relation to protective covers, in summer 2014, BIS proposed that both in the Filling 1 (cover placed direct over CM-foam) and Filling 2 (cover placed over fibre wrap over CM-foam) the test should require a pass (non-ignition) and also testing to classify whether the cover was a “pass protect” or not. If the cover failed the ignition test, obviously it could not be used. If a cover passed but was not “pass protect”, we required unregulated materials 40mm from the cover to be tested through a modified test method.

The summer consultation also proposed that unregulated materials under the cover should also be tested and classified for a protective function.

This would then create a “hierarchy” so that:

* if a cover fabric was protective (a “pass protect”) there would be no need to test unregulated materials under the cover;
* if a cover fabric was not protective, then if there was protective material under the cover, there would be no need to worry about any ignitable materials under that protective material.

but

* with no protective cover, and no protective unregulated material-“cover”, manufacturers/ upholsterers would have to make sure (either by design, or by replacing ignitable components with non-ignitable components) that there were no ignitable materials within 40mm of the cover. It was considered this would create a sufficient distance from surface application of the match flame (because this was the depth to which a flame might penetrate in the time of the test) to ensure the result was safe. (The diagram confirming how this should all work was set out in p4 of the Systematic rationale you and Steve wrote in October 2014, which we republished again with the Government response.)

**What is the new proposal?**

As well as dropping Filling 1 (which you agreed) we are now proposing to

* Drop the requirement to classify unregulated materials and the associated need for a process (which was never satisfactorily pinned down) for a system that would list components that “pass” (you have not challenged the point about the list); and
* Drop the requirement to test/classify covers as pass protect, or pass non-protect (NP) but leave *as an option* (if the Minister wishes) an alternative route to compliance which would allow a test for a protective cover, with an alternative methodology (again, to be consulted on).

Assuming the Minister agrees we consult on this basis, what we would be saying is that there is a primary route to compliance or a further optional route.

Under the *primary* route to compliance for the match test, manufacturers/upholsterers will have a choice: either

* they can make a decision (as a matter of business principle) that they will use Schedule 3 interliner route (using an interliner between cover and the filling) as a route to compliance for all their furniture/other products (because using the interliner will mean they don’t have to test unregulated materials); or
* they will test all their unregulated materials and ensure the design of furniture/ other products works so that only unregulated materials that pass the (simplified) test are used within 40mm of the surface (this may involve some redesign, or use of new components). A sub-option here is that in the occasional case (e.g. for a particular design of furniture where redesign/re-sourcing is not possible) they will use a Schedule 3 interliner.

Under the *alternative route*, we would be saying that with an alternative method for defining protection, manufacturers using covers deemed protective would be able to avoid testing unregulated materials.

As I understand it, the attraction under the current regulations of using Schedule 3 interliner route is that for certain cover fabrics the manufacturer does not have to use FRs. **This means that those choosing Schedule 3 will either not be using FRs in the cover (which is where we have publicly stated the main problem is for health reasons[[1]](#footnote-1)) or be able to reduce their use of FRs in the cover**. Equally, those choosing to use only compliant unregulated materials will be able to reduce FRs in the cover; as will those using an interliner route for some of their products.

I would stress that we are **NOT saying that covering or encasing small uncompliant components with a piece of interliner is a route to compliance**.

We expect the alternative option would apply predominantly to the rarer fabrics/fabrics more rarely used for furniture and furnishings. Leather is the example you’ve given; but according to the table in Annex 2 of the technical paper (as it was circulated with the Government response) a pure cotton cover should be another, as would be the innovative fabrics such as those produced by Mark Dowan (see section on consequences for the changes).

**Reasons for the proposed changes**

It’s also worth recapping why we are making these changes.

On the **first point** (removing the classification of unregulated materials), as you know, we have not been able to find a satisfactory process for making a list. In particular, this is because our lawyer, Carol Burton, has advised that the only way people could legally rely on a list would be for the list to be in the regulations (not as guidance issued by BIS or by the test houses). But this means the Department would have to be responsible for creating the list (which would have to be much more extensive than the list in the October 2014 paper[[2]](#footnote-2)) and also for revising the SI at very regular intervals. As we agree with stakeholders that the list would need to be updated at least annually to be useful to manufacturers, we think this is not a practical proposition.

In addition, we think that classifying unregulated materials as “protective” or “non-protective” is more problematic than it first appears

1. because the “covering” function may only apply in certain planes or at certain angles which means there is scope for argument between test house/TS as to whether the protective classification is actually achieved in given configurations.

OK from this angle but not others

Diagram to show upholstered armrest: the 40mm requirement may only be met from one main direction.

This also begins to make the test look more like a test for an actual composite[[3]](#footnote-3). However, generally the FFR testing regime is supposed to be “stand-alone” and does not assume a particular physical configuration for the final assembly.

1. the protective/non-protective distinction rests on the same initial definition as for covers (i.e. hole formation) – and it is not obvious that this kind of distinction for unregulated materials makes best sense.

While it is clearly essential from a safety perspective to keep the requirement to test unregulated materials as part of the revised match test (and stakeholders like the FPA are keen on including these components) – we are therefore not convinced we can/should differentiate between protective/non-protective unregulated materials.

We also know it is cheap to test unregulated materials so although, absent the list, there won’t be a “once-for-all” test for certain materials, this is a matter of “pennies”. And, as XXX’ experience shows (by getting their unregulated materials tested in one afternoon session at Intertek) testing for all unregulated materials a manufacturer uses will remain a quick process. (I’ll pick up the points on compliance later.)

On the **second point** (protective covers), there are also policy and pragmatic issues for generally dispensing with the need to classify all covers as ‘pass’ or ‘pass protect’.

As regards policy, the BSI process suggested there remain concerns about the proposed hole formation methodology (not just from FIRA). This seems partly a definitional question: they are concerned that measuring a “hole” as defined in the regulations (Reg 4) – *“hole” means a hole greater than 2mm2* – would be problematic, and so contestable. There is also a view that with the removal of Filling 1, the protective cover route is not so necessary.

We think it is important to have a broadly agreed method for measuring the protective function of covers, otherwise the test houses will be pulling at sixes and sevens (and giving contrary advice). The fact that the BSI process didn’t produce that agreement is unfortunately a problem for the policy.

In addition, in re-checking out the final annex of Systematic Rationale paper (p13), we found that **all the cover types listed there, that pass in a Filling 2 scenario, are NP (non-protective). Although we know that there are some rarer materials (leather, 100% cotton, etc.) that are not in this table and which would be classed as protective, in general this means that our proposal to remove the need for a protective cover test and require people to test the unregulated materials for any pass makes no change in practice to the result** for the majority of cases because under the original proposal**, for all these covers testing of unregulated materials would have been required**.

FIRA’s results also confirm that for 100% polyester covers which have an application of 48.9% FRs the fabric is accorded a pass even though it splits – so it would presumably be accorded a NP pass. So similarly, for these fabrics, requiring testing for unregulated materials for any pass will make no difference.

As noted above, however, we are aware that this argument would not apply to Mark Dowan’s type of innovative cover (the new design which is resistant to flame under the match test even with no FRs). More generally, we understand there are ‘protective’ covers manufacturers could use or that other such covers could be invented.

This provides comfort in suggesting we keep the option of protective covers open, if the Minister wishes, for manufacturers/upholsterers who would (a) like to use this material or these types of material and (b) would see the advantage thereby of having to avoid testing unregulated materials.

In terms of the definitional problem, I suggested to you in our meeting there could be different ways either to define “hole formation” or agree a way to measure it (e.g. a “hole means a hole bigger than x as measured by a probe”). It would also be possible to make a short list of protective cover types. This could have significant advantages: for example, it would be a short list (like the list of relevant materials in Regulation 8); it would give certainty, and it would bring manufacturers’ attention to innovative materials. Although there would be the need to update the list periodically (if other new materials were invented) it is unlikely there would be a need for the same frequency of update as for unregulated materials, so this would be more do-able.

**What is the consequence of these simplifications?**

So what are the implications of these simplifications for our objectives?

As I explained to you at our meeting, we have some top-line objectives (safety, reduction of FRs and ideally reduced costs). Of these, safety and reduction of FRs have been more important to both our Ministers than reduced costs. Anna Soubry has also wanted a good narrative/handling strategy and to be assured that any fight (with the FR industry) is “worth it”. This means trying to assess inter alia the issue of **materiality** (i.e. will the reform make a *sufficient* difference to outweigh changes/ disruption to business and the annoyance the reform will cause to certain groups?)

To get a rounded picture we also have to look at other consequences such as[[4]](#footnote-4)

* other consumer objectives (particularly consumer choice) which will often shape how business responds to proposals;
* competition issues (within the industry and also across the Single Market); and
* wider enforcement objectives (in other words, as well as solving (as we want to do) the problem of under-treatment of cover fabrics, does the method facilitate compliance and enforcement by keeping things as simple as possible).

In all of these, trying to work out how business will respond to the change is key. I was very clear in our meeting that understanding business reaction is very difficult. On the one hand, business may not have understood a proposal, or worked out how they can exploit the new rules to their advantage. On the other hand, they may have understood perfectly well, but decided for other business reasons that they will not react to the proposal in the way we expect.

As I said to you at our meeting, I am not convinced we have identified properly how business will respond. Nor have we got on the team a worked out analysis of the market, e.g. by primary market vs secondary market, sector etc, to calculate the quantum of any behavioural response. But here are some points, first on testing of unregulated materials, then on FR usage and consequent costs.

*Testing of unregulated materials: implications for testing and use of interliners*

As already noted, all the main cover types listed in the Systematic Rationale paper that pass in a Filling 2 test are non-protective. This means any producer using these covers would have to find a solution for the unregulated materials.

**We also recall that Steve said quite candidly to Phil Reynolds, in his email to Phil on hole formation that he was “…unsure of the significance of the measurement for the primary upholstery market, the main constituents of which offer any frame / any cover combination and *thus they would have to assume all covers to be non-protective to guard against this*” (my italics)**

So – for a large number of cases, not assessing a cover for protection will make no difference to the outcome. Manufacturers and possibly other upholsterers too, who offer the widest consumer choice, will have to assume their covers are non-protective and therefore accept they must test their unregulated materials. Henry I think recognised this, when he went to Intertek to see what the consequence would be for testing the unregulated materials he uses at XXX[[5]](#footnote-5).

There may be – as you say – some businesses who would want to avoid testing unregulated materials. A protective cover route would be particularly attractive to them if they believed it would be impossible to get a pass for their unregulated materials (or achieve a hierarchy in design with a “cover” layer of protective unregulated material).

Unfortunately, some sectors, e.g. BPA say that the only way they could deal with the original proposal would be to go down a full interliner route. In our meeting you said that “they say that, but in practice they will not do this”. However, I’m not sure what evidence you have for this. Also, you’ve also previously said to me that what we need to do is persuade BPA that there are other fabrics (presumably protective fabrics) that would do equally well as a top cover for their products so that they didn’t need to use an interliner. But I don’t think we can assume that our powers of persuasion would mean they will change their view – because we know they’ll also be live to competition from Single Market baby product producers (they’ll want to go on offering the kinds of covers that EU producers offer) and to what consumers want.

They may also have other considerations: for example, I can imagine that one thing BPA may be interested in is how quickly a cover fabric can be washed/sponged clean and dry (say if a baby is sick on a padded car seat). If this is important to consumers, or if consumers want to maximise choice of fabrics, then the producers will try to accommodate them and this may influence what covers they offer.

The point is: it is reasonable to consider that there **is some truth in the BPA claim that under the original proposal they would opt for an interliner route to avoid having to test unregulated materials**: and if that’s right we can say that under our revised/simplified proposal, they may well opt for an interliner route to compliance as well.

I accept there is a possibility that we may be able to persuade particularly the BPA that they don’t need to use interliners. But in the cases I’ve thought about, this would be more because we were able to persuade them that a product or part of a product fell outside the scope of the regs altogether[[6]](#footnote-6) or is likely to be designed in a way that means there would not be any problematic unregulated materials in the product.

There is also the case of bespoke, or reupholstering, to consider. On this, the example of a catalogue I’ve seen shows that the company selling material to the customer for them to use with their own furniture/their own choice of upholsterer, plays safe and recommends use of Schedule 3 for *all* fabrics

“*For upholstering, all fabrics require a flame retardant barrier interliner, compliant with schedule 3 of the safety regulations; use a reputable upholsterer and seek advice*.” (Laura Ashley 2015 catalogue)

In sum: as regards unregulated materials, it’s not clear that our revised proposal will make very much difference to people’s approach to unregulated materials: those that want to test will test, and those that don’t, if they already think they’ll have to use an interliner, will likely use an interliner under the revised regime; and those that now recommend using an interliner will continue to do so. But this is one advantage of consulting again – we will be able to push much more for accuracy in understanding the effects.

*Use of FRs and associated costs: implications*

To work out the implications for the use of FRs, there are several angles to consider.

On unregulated materials, it was never going to be possible to make highly flammable unregulated materials compliant by application of FRs. So there is no change here.

In relation to covers, the FIRA results – which show that it is possible to reduce the amount of FRs applied on cover fabrics and still product a pass (fabric doesn’t ignite) over Filling B – demonstrate that there can still be FR saving in relation to the cover. In addition, the fact that there is a pass (fabric doesn’t ignite) on a reduced level of application of FR on polyester, which is the most commonly used fabric, also shows that the saving will not be insignificant.

It’s also worth noting that, as you acknowledge in your personal note of our meeting, there is an extent to which addition of back-coating with a higher density FR prevents fabric splits. Under the original proposal, this could have enabled people to try to “game” the system, i.e. by using *more* FRs to prevent “hole formation”. I don’t know how big that effect might have been – but under our revised proposal (where the protective/non-protective route doesn’t generally apply) this incentive will not apply in the majority of cases.

It may be that savings will be somewhat less than under the original proposal for two reasons:

* FIRA’s results showed that over Filling 1, you can get a polyester cover fabric pass with no FR, albeit one where the cover splits. This suggests the FR savings on the cover may have been greater with Filling 1 – which would tally with the remark Phil Reynolds made that in removing Filling 1, manufacturers will not end up reducing FRs so much.

However, we’ve always acknowledged that Filling 1 was for a small subset of the market, so this will not be a large effect.

* Clearly, not having a protective/non-protective distinction for the main route to compliance may weaken the incentive for inventors to try to find a non-FR fabric that would avoid them having to test their unregulated materials.

However, if those who said they’d respond by using an interliner are likely still to use an interliner route, then this conclusion is also less clear-cut. Also, if we are consulting on a different way of identifying a protective cover, then those who want to switch to new technology may be able to do so.

We can tabulate these results below

|  |  |  |
| --- | --- | --- |
| **Original (summer 2014 proposal)** | **Revised match test proposal (with option)** | **Anticipated net effect** |
| No application of FRs to unregulated materials | No application of FRs to unregulated materials | No change |
| Reduction of FRs in covers | Reduction of FRs in covers generally remains, but less saving because of Filling 1 | Decrease (though not clear by not as much) |
| Potential attempts to game protective covers rules by application of more FRs | None – no need to test for protection if the list approach to protective fabrics is used | Possible decrease |
| Incentive to use an interliner exists, though to what extent it’s difficult to quantify | Same incentive to use interliner exists. Those wanting an alternative will have one. | Possible increase (though not clear by how much) |

I accept that we don’t know the quantum of the possible increase/decrease of use of FRs: but that’s because we have no good data on how the market divides or on the fabrics used, apart from some general approximations set out in our technical papers. It is reasonable for us to test this in consultation.

*Implications of no longer including a protective classification for unregulated materials*

There are two other issues you’ve raised relating to the removal of a protective classification for unregulated materials.

First, there’s the question of whether manufacturers will struggle to find ways to manage flammable components that they commonly use now within 40mm of the surface and which would have been “underneath” a protective unregulated material according to the original proposal. I find this a bit hard to believe given the Annex (p11 ff) suggests there are e.g. webbing materials and forms of clips etc which in the lab were “not easily ignitable/protective”.

So it’s possible manufacturers will struggle: and it’s possible that they might then turn to the full interliner route to avoid re‑jigging the design of their furniture. But it is also possible that the removal of this classification – which could be dealt with by re-designing the product, will be dealt with by re-design. And it would seem very odd if we are happy to encourage innovation in development of covers but don’t seem to want to incentivise it in use of unregulated materials?

*Implications for health*

Finally, we need to think about the consequence for health of the modifications we’ve made to the match test proposal.

While I accept that it is possible that as a result of the proposed simplification more FR-coated interliners may be used than in the original version of the propsoal, I don’t think we can be sure of this effect. But I do think there will remain a positive effect from the reduction of FRs in the covers, and given that the concern about human health is mainly about FRs in the cover (as already noted in footnote 1) there is still a clear health benefit from the modified proposal, and a possible further benefit from the invention of new forms of cover which could be used as surface materials.

To sum up, I will recap on the narrative above to answer your questions.

**Concern: The recommendation regarding the simplification on protective covers is not researched/tested or analysed at all.**

A: We don’t accept this. The proposal builds on (a) existing mechanisms (the Schedule 3 route) (b) the advice from the BSI process which we have attempted to take on board – but not uncritically. We have attempted to analyse the business effects quite carefully, using the clues provided by stakeholders, and taking into account the different reasons they might have for saying what they would do. Moreover, we will seek to test this further via the proposed consultation.

I have tried to set out some of the reasoning above to show the thought that has gone into the revisions.

**Concern: The revised proposal will raise industry’s costs**

A: It may raise costs – but the original proposal would also have raised costs. The question therefore is how big that cost differential is – and whether the changes to the proposal make things generally simpler for the majority of manufacturers/business – which can only benefit everyone.

To put it another way: whether our amended version of the match test raises industry’s costs significantly depends on the starting assumptions. Given we think we have to adjust the starting assumptions (and start from a higher base), we don’t think the change will be that great.

We have to be clear that not everything that business says to us is misleading: manufacturers/ upholsterers can have legitimate reasons for not wanting to go down a route of e.g. using new fabric types. We also have to accept that price differential on its own may not cause manufacturers to move over to other cover fabrics (for example – leather is an impractical covering for baby products).

This means we don’t find the argument “they could always do something different” or “they will do something different in practice” convincing.

**Concern: The revised proposal blocks innovation**

A: Not true. We are proposing consulting on an option for a protective cover – which would allow innovation for some types of soft furnishing. We remain unconvinced that the originally proposed match test would have necessarily led to much more innovation. And by making room for this kind of development, we would allow a “direction of travel” which is important (and more realistic, if it is going to take time to bring innovative products to market).

**Concern: The revised match test proposal would not be enforceable by Trading Standards**

A: We don’t understand this point. We’re not talking about allowing people to have scrappy little bits of interliner to protect their unregulated materials. TS must be able to test interliners now (e.g. with IKEA), or else we would be saying that they can’t test the 25% of the market that currently uses the Schedule 3 route.

As regards the unregulated materials themselves, we would also expect this to be covered in the traceability proposals: manufacturers would produce a technical file which would include details of the components (currently unregulated materials) close to the cover and confirm their source and when these types of components were tested.

And in terms of forensics, it was always the case that TS would have to disassemble sofas to make sure that the unregulated materials used were (a) what the manufacturers note said they were and (b) positioned correctly so as to be compliant.

**Concern: Safety cannot be guaranteed under the revised proposal**

A: We don’t understand this point. Safety is not compromised with the Schedule 3 route (which is in effect what the interliner route would be). In the absence of an interliner, all unregulated materials will be tested. So if anything, this proposal is more conservative than the previous version.

**Concern: Some common materials can’t pass**

A: This is true. But it seems odd to assume that there wouldn’t be innovation here, when there would be a strong incentive for manufacturers to do so (to avoid the extra costs of the interliner[[7]](#footnote-7)) – plus the papers we have show that there are types of material which would perform the same function as existing materials that pass the test. (So for example we don’t see why there wouldn’t be alternative materials that can’t perform the function you describe of “preventing the deformation of the cardboard under load”.)

**Concern: In removing the option of a protective cover/hole formation, there is NO way that material can be deemed protective**

A: We are not removing the protective cover option, but presenting it as one method to compliance, recognising that business models will influence how manufacturers approach compliance with the regs. I suggested two ways in our meeting which we could present as an alternative and have added more detail here.

We are also aiming to consult various test house experts (including those who had positive suggestions at the BSI FW/6 meeting) to get their ideas.

**Concern: The BIS narrative will be incoherent**

A: In terms of what we say, we can be very clear i.e: we consulted; in response the then Minister asked for further work; we have taken the views of the BSI committee and amended the original proposal in the light of those.

On the technical side, we’ll be able to say (inter alia) that

* The BSI process produced findings which argued for (a) the removal of Filling 1; (b) no evidence to undermine the core of the new proposal – which is about bringing in a test that better replicates actual furniture construction; and (c) the suggestion that it would not be possible to agree a foam formula (hence requests for this won’t now be entertained).

We will emphasise that the original proposal in its core concept remains.

However, because it was difficult to understand the effects properly as the original proposal ran the two elements – ignition behaviour and barrier effect – together, we are reducing the circumstances in which testing for ignitability/barrier protectiveness are combined.

This means we can get a better understanding of the effects of the proposal and to what extent the desired reductions of FRs in the covers will be matched (or offset) by use of interliners; but we expect that the cost of using interliners should help keep manufacturers focused on how to eliminate flammable components from their designs (so reducing the use of interliners/use of FRs).

The consultation will also allow us to confirm the practical impacts on business – especially when combined with the proposals on scope and traceability.

Barbara Middlemiss

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1. Para 17 of the consultation paper: “…. The potentially more **harmful chemicals - e.g. brominated flame retardants (BFRs) - are used** in/under cover fabrics” [↑](#footnote-ref-1)
2. Also, possibly we’d need to agree to arrange the testing/pay for it from the BIS budget, as some stakeholders thought we should pay for the testing to create the list [↑](#footnote-ref-2)
3. and in fact, part of the proposal (p6 of the Systematic Rationale) is that if an item is consumed within the test duration it has to be tested as part of the assembly [↑](#footnote-ref-3)
4. This is not an exhaustive list – but the points are all relevant for BIS in particular [↑](#footnote-ref-4)
5. XXX’ value proposition is “you choose any fabric, any cover, any design” – cf their adverts on Classic FM! [↑](#footnote-ref-5)
6. We have checked this with Carol, and she confirms the sides of a Moses basket, as presented to us by Mothercare would be out of scope of testing for unregulated materials. [↑](#footnote-ref-6)
7. Note: with an interliner, there won’t be extraneous reasons for preferring one type of fabric over another, so the price differential (with cost savings coming from not using an FR-loaded interliner) will be a strong driver [↑](#footnote-ref-7)