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BY E-MAIL

Office of the Secretary
Consumer Product Safety Commission
Room 502, 4330 East-West Highway
Bethesda, Maryland, 20814

Re: Sec 102 Mandatory Third-Party Testing of Component Parts

To Whom It May Concern:

Apparel Technical Services submits this document in response to the request for comments and information regarding *Mandatory Third-Party Testing of Component Parts* issued by the Consumer Product Safety Commission on December 15, 2008.

As owner of Apparel Technical Services, I've been providing production engineering and consulting services to apparel manufacturers since 1995. I am author of the most highly rated book in the industry, The Entrepreneur's Guide to Sewn Product Manufacturing. With over 25 years of experience in the apparel industry, I operate, write, edit and maintain a web site called Fashion-Incubator.com which is the number one portal on the web for entrepreneurial enterprises. In addition, I founded a membership organization of the same name, comprising nearly 1,000 business owners.

Speaking on behalf of my nearly 10,000 daily site visitors, members, customers and clients, I urge the Commission to give grave consideration to modifying the regulations with respect to sewn products, including apparel and childcare articles made primarily from fabric (NAICS industry code 315) as I've detailed as follows:

- Executive Summary
- A description of processes governing use of components in the sewn product industry
- Organization and profile of the apparel industry
- Response to Questions 1-8
- Summary and suggested solutions
- Appendix

Sincerely,

Kathleen Fasanella

Executive Summary

My response may be summarized as follows:

- Dyes and synthetic fibers are lead and phthalate free, and component testing allowed for those will enhance safety.
- When no components contain lead or phthalates, there are no processes in this industry that will introduce them.
- Component testing is preferable to unit testing in the pursuit of safe children's products.
- Testing performed in support of standards that are more stringent than those embodied in CPSIA should be accepted without requiring further testing.
- The greatest process risks in this industry are less sophisticated entrants and poorly managed subcontractors. To reduce increasing enforcement costs, CPSC should develop mechanisms to encourage compliance perhaps through a safe harbor program.
- The greatest component risks in this industry are commodity hardware (for example, zippers, buttons, and snaps) and non-standard inks, appliqués, and adhesives, especially when used by new entrants and unsupervised subcontractors. Component testing will result in greater safety due to economies of scale, free riding, and competitive pressures.
- CPSC precedent permitting the use of third party testing results for component parts from suppliers exists (flammability) and for continuity and cost efficacy, should be continued under the CPSIA.
- The sewn product market is easy to enter, and should remain so. In addition, many of the components intended for adults may be easily substituted into products intended for children. As we will argue, so long as those conditions hold, children's safety is improved by allowing component testing. We also offer suggestions for improved enforcement mechanisms.

A description of processes governing use of components in the sewn product industry

Most of the inputs to this industry are inherently lead and phthalate free. Natural fibers such as cotton, wool, silk, bamboo, linen (flax), ramie, hemp and a variety of leathers such as unfinished hides or leathers processed with brain, tannin (typically wood oak) ordure and or urea (a natural and sterile solution) are lead and phthalate free. According to Cotton Fiber Chemistry and Technology (Wakelyn, et al, 2006), lead content is not detectable in cotton, and similar results will be found in other natural fibers. Other fibers such as rayon, acetate, nylon, and lyocell (and trademarked variants such as Modal and Tencel) are made from natural sources such as wood pulp. These are naturally lead free and phthalate free. Polyester thread is a common input but is free of lead and phthalates. Of the undyed fabric inputs, it is only synthetic PVC which poses potential problems, but its application is so limited that it may be easily monitored. In addition to the undyed cloth, inputs for this industry include dyes, leather tanning chemistry, plastic and metal hardware, and fabric treatments. Dyes and tanning chemicals are free of lead or phthalates. Thus, the major areas of concern are hardware, applied embellishments and certain fabric treatments such as screen-printing.

Processing in this industry mostly consists of cutting and sewing. Cloth may be purchased in dyed or undyed form, but the dyeing process does not create a risk of lead or phthalate introduction. There are heat-based processes, but again, so long as the inputs are free of restricted chemicals, the process itself will not introduce contaminants.

The great advantage of component testing is that it will move compliance upstream to the producers of such inputs as cloth, thread, fusible, stuffing, buttons, zippers and other hardware. Since most of these suppliers already conduct testing in house or via third party, extending the use of their test results to manufacturer customers would eliminate the greatest redundancies of testing currently required by CPSIA. Additionally, component testing will allow smaller manufacturers to achieve some economy of scale since tested fabric may be used in multiple final products (for example, pants and shorts, long and short sleeved shirts). Thusly, moving compliance for lead standards to their source, provides the greatest assurances of product integrity via “free-riding”.

Profile and organization of the apparel industry

To understand how product is rendered, it is necessary to understand operations typical of this industry with a particular focus on the key differences between large and small entities to simplify regulations that will encompass them both.

Competitors may enter the apparel production market very easily. The basic materials are sold as final products at retail stores, the machinery is a common household appliance, and the basic skills are easily obtained. Because of this, manufacturer size varies from single person, part-time entrepreneurs to large-scale factories. The vast majority of enterprises (68%) are in the 1-20 employee range (2002 Economic Census).

For the sake of simplicity, most manufacturers be they large or small, produce samples which are presented to retailers with the anticipation of securing orders at market which is several months in advance of delivery to stores. Several months prior to attending market, the product cycle is started by attending wholesale fabric shows to obtain or "source" materials. Only small quantities are purchased and from which designs are developed, patterns are made and the prototypes ("samples") built. These samples are given to sales representatives and presented to retail buyers at market. Based on those orders, successful designs are scheduled for production. At that time, production quantities of materials are purchased, labor is hired, and then product is delivered to order.

Being a highly leveraged industry, many enterprises large and small rely on lenders ("factors") or purchase order financing to bridge the gap of time and money required between the time materials are procured and labor paid, to the time retailers pay for product delivered and sell it. Factors and lenders wield a great deal of control over what is sold and to whom; noncompliant inventory is unlawful, therefore unsellable and consequently, not able to be financed. Retailers also exercise a great deal of power with policies currently proven to be far in excess of CPSIA mandates.

The difference between small and large firms is mostly the length of their production schedule and the process whereby they acquire materials which affects the manner by which they are required to comply.

Larger enterprises work closely with fabric mills and hardware manufacturers to develop components at least 12 to 16 months before it is sold, taking advantage of economies of scale. It is typical for components to be made to their exclusive specification and over which they exercise a great deal of control. Obviously testing will be rolled into the system and while the costs are not inordinate, the production schedule won’t be inordinately impacted provided they are permitted to test at the component level pre-production when components are designed.

Smaller manufacturers are able to produce in much shorter time frames because they do not have the economies of scale that allow them to control the production of their inputs; they are price takers who buy what is available at wholesale fabric shows. These shows are held nationally and

internationally, and are timed to coincide *specifically several months in advance of market* where samples are shown to retail buyers.

Herein lies the difficulty; all manufacturers will test their inputs at the outset in the product development phase, well in advance of the CPSIA mandated final unit testing to prevent the possibility of wasting time and money on products that may not pass final testing. It is thus that CPSIA has created the need of duplicative testing. Worse, smaller entities buying materials at wholesale shows will not have enough time to complete component testing of their inputs and develop the product line with sufficient time before market. All are stuck in between two time frames of trade show dates, which owing to agreements with convention centers owned by municipalities, cannot be varied within the next three to four years.

Manufacturing and Retail Partnerships:

Absent in this discussion has been the effect of technology on trends in manufacturing and retail of which there are two primary affects at this juncture. The first is that retail has played a unique role in vetting products for the marketplace. Previously manufacturers had little recourse in selling their products themselves and owing to strict fulfillment criteria of larger stores; products that failed compliance of existing rules and regulations were mostly eliminated at market or delivery as a matter of liability. It is thus that retailers are demanding very restrictive interpretation of CPSIA, well in advance of those standards required by law. Perhaps germane but illustrative of this process, retailers are demanding retroactive proof of compliance accordant with CPSIA going as far back as 2006. This system was not perfect but this holistic vetting system of retailers as gate keepers prevented unsafe products from entering the consumer stream. Currently though, with the internet, tiny enterprises are able to sell products to consumers directly, bypassing the vetting system. Owing to such technological retail innovations that cannot be undone, permitting testing at the component level and permitting the transfer of proofs of compliance to manufacturers of all sizes will eliminate the opportunity for unsafe products to enter the marketplace. With the internet, it will be otherwise impossible to control the manifestation of a continuing influx of unsafe products without approval of component testing upstream of manufacturers of sewn products..

The second trend owing to advances in technology, the general gloomy outlook at retail and increased expectations of consumers, means that retailers are less willing to place orders for goods according to the traditional calendar. The growing trend has been toward buying “immediates” which refer to goods intended to be delivered within four to six weeks. It is the most innovative and agile firms that have the opportunity to be successful by meeting these short production timelines. Without component testing at the level of material suppliers, this will be all but impossible, resulting in unimaginable opportunity losses. Retailers will continue to be compelled to place orders for goods months in advance of delivery meaning they will either be straddled with the risk of holding a lot of inventory that misses up to the minute trends and succumbing to failure themselves or they will return it, again incurring losses to the manufacturer who may then fail lacking a buyer to take the goods.

1. How the risk of introducing non-compliant product into the marketplace would be affected by permitting third-party testing of the component parts of a consumer product versus third-party testing of the finished consumer product.

Component testing and finished product testing both have inherent risks. While the advantage of final product testing is that it is much more likely that the samples used in testing are representative of the final product delivered to the consumer, the great risk is that it is so uneconomical that it will drive a great many smaller manufacturers out of business. At first glance, this would seem to increase the safety of products on the market but in the long run, would drive enforcement costs out of control. As variety decreases and prices rise, the low cost of entry to this market will become an important factor; there will be a constant influx of new entrants who subsequently fail, violate the law, or both.

This paradox will lead to an endless cycle of enforcement followed by increased prices and decreased variety, followed by entrance of noncompliant entrepreneurs, followed by more enforcement. The entrepreneurs are not necessarily bad actors; indeed, much of the blame for their inability to comply is native to the system of market entry, as well as a lack of mechanisms to provide timely updates as to new laws and regulations. For example, the CPSIA came under the radar for many companies. As late as December 2008, few children's apparel manufacturers and retailers had enough knowledge of it to make informed business decisions. Even as late as January 2009, few had a comprehensive plan for compliance because they still did not understand the rules and many details remained undefined. With few exceptions, new entrants have few resources for finding out about it until they are well into production if not delivery.

2. The conditions and or circumstances, if any, that should be considered in allowing third-party testing of component parts.

We perceive no problems with third-party testing of component parts provided the final component -meaning the input used in the production unit -as opposed to a sample or prototype unit- is tested.

3. The conditions, if any, under which supplier third-party testing of raw materials or components should be acceptable.

To the extent that supplier third-party testing standards meet or exceed the requirements of CPSIA, these should be acceptable so long as the caveats about downstream processes and substitution noted previously or hereafter are observed. This should include international standards such as Oeko-Tex, EN 71, and Global Organic Textile Standards (GOTS), and voluntary standards such as ASTM 973. Some of these are listed in the appendix to this document.

4. Assuming all component parts are compliant, what manufacturing processes and/or environmental conditions might introduce factors that would increase the risk of allowing non-compliant consumer products into the marketplace.

As noted at the outset, processing consists primarily of cutting, sewing, and in some cases, heating and washing. So long as the inputs are compliant, none of these is capable of introducing non-compliance.

5. Whether and how the use and control of subcontractors would be affected by allowing the third-party testing of component parts.

As a general rule, manufacturers located in the US who employ domestic contract production, do their own sourcing, delivering inputs to contractors directly. US manufacturers contracting overseas often contractually stipulate that a contractor or by extension, a subcontractor to do the sourcing to their specifications. There is little doubt there are instances in product development or in pre-production in which contractors or subcontractors have failed to comply with mandates specified by their customers in producing samples and prototypes. This is a typical and expected exploratory stage of product development and through out this process, customers and contractors control and verify product requirements well before the production stage and final shipping.

One typical solution to exercise tighter controls by manufacturers is to contract the production of certified compliant components and supply these parts to the sewing factory. In such cases where the customer has not designed and produced the components independently, it is a matter of contract oversight and control to exact upon the contractor and subcontractor to provide third party testing results for all used components. Still another possibility is to employ random sampling of components for compliance. To facilitate this, an exception would have to be made to allow importation of samples for the purpose of testing in the event CPSC certified testing facilities were unavailable due to logistics or scheduling in the country of origin.

A further note should be made about subcontracting, especially to foreign factories. Although it might be assumed that only sophisticated sewn product manufacturers would engage in this activity, that is not necessarily the case. While most of the foreign subcontracting is probably done by large, sophisticated manufacturers, a common suggestion to new entrants with access to capital is to develop a business around this kind of subcontracting. Because of the success of name brand apparel in the past few years, a common business model is to establish a brand, a logo, and a perception of lifestyle, but to subcontract every other aspect of the business. These new entrants may have capital, but they don't have the sophistication to understand the business at the level required to insure compliance with CPSIA and possibly other regulations. It is for this reason that exceptions should be made to permit the importation of product samples for testing in the event this is needed.

6. What changes in inventory control methods, if any, should be required if third-party testing of component parts were permitted. Address receipt, storage and quality control of incoming materials, management and control of work-in-process, non-conforming material control, control of rework, inventory rotation, and overall identification and control of materials.

No one disputes manufacturers must keep meticulous track of incoming components linked to test results, unused rolls, and batch IDs linked to the specific inputs used, which is particularly important when buying widely varied components in small lots. This is an area of competitive advantage that producers learn very quickly (see response to Q.7). This is an area of relative strength for established manufacturers with robust tracking systems using PDM/PLM (Product Data Management/Product Lifecycle Management) software.

In truth, this can be a business management challenge for new entrants to master without the resources be these sophistication, knowledge of process controls or software tools. New entrants and/or those who have not mastered process control of manufacturing processes may not be able to cope with this to the level required by the law. However, there are now relatively affordable new software tools (such as StyleFile by PatternWorks Inc) which are available for new entrants to facilitate the full range of PDM/PLM requirements of testing, inventory and batch control. Improving manufacturer sophistication could be a matter of integrating producers into a standards notification system, perhaps via the FTC registration mechanism.

7. How a manufacturer would manage lot-to-lot variation of component parts, in a third-party testing of component parts regime, to ensure finished consumer products are compliant.

Perhaps surprising, the management of component parts is an established practice in the trade and not nearly as difficult as one would suppose. This is due to the necessity of controlling "shading" (color control) down to precise dye lots even of the "same" color. It is difficult to overstate the importance of this aspect and explains the development of mechanisms by which components are controlled. It is so common to track components –even those of "identical colors" by lots to the point of redundancy, that even new entrants learn this necessity very quickly. In any event, this is another area where testing upstream by component suppliers can be a clear advantage over unit testing. For an industry where color and texture matching are critical, managing such variation has valuable economic benefits besides those required in the law, and is therefore a point of competition between manufacturers. Robust process controls by way of manual or computerized product management systems, can manage this quite effectively –and have for nearly two hundred years.

8. Whether consideration of third-party testing of component parts should be given for any particular industry groups or particular component parts and materials. Explain what it is about these industries, component parts, and/or materials that make them uniquely suited to this approach

As an input to the cut and sew apparel and some child care product industries, textiles and components are well-suited to third-party testing. Textiles are inherently lead and phthalate free. Commodity hardware items such as snaps, zippers, buttons are largely free of lead and phthalates but as commodities, suffer from the problem of wide availability and ease of substitution.

Fabric is sold for use in children's products through a wide variety of channels. Fabric is sold direct as well as through distributors, jobbers, wholesalers, and retailers; it is sold to manufacturers, subcontractors, and parents. Allowing third party testing of both unfinished and finished textiles will push the compliance with this law further up those delivery streams to their sources. Mills that sell into the children's market already test and comply with a variety of laws (such as the flammability standards), so they are already prepared for this. Indeed, some textiles are compliant with international standards which have tighter compliance requirements than CPSIA —Oeko-Tex and GOTS are just two. Market pressures will quickly ensure that most if not all mills will test most if not all of their products, or at least those that might possibly end up in a children's product. The vast majority of small manufacturers' inputs will therefore be compliant regardless of their business and process management sophistication. So long as this market is easy to enter, children's safety is improved by allowing testing of textiles as a component.

Commodity hardware items are also widely available at manufacturer, wholesale, and the retail level. Smaller manufacturers do not buy large quantities of each, nor are some items specifically marketed as children's products. Thus, unsophisticated entrants may be tempted to draw from the vast pool of untested products. Again, by allowing component testing, compliance will tend to work upstream to the source of these components, making it less likely that noncompliant components will end up on otherwise compliant products. Smaller manufacturers and even parents buying components at retail outlets will be able to free ride on the testing done to market products to large batch consumers of these commodities.

Summary and suggested solutions

Due to low barriers to entry –which is to be encouraged- new entrants lack the sophistication of process management. There are no schools or training programs where this information can be acquired; it's largely by doing that one learns. As such, new entrants and/or those who have not mastered controls of manufacturing processes simply will not be able to cope with the requirements to the level required by the law, yet without practice, they cannot learn. We suggest several mechanisms for addressing this problem. First, component testing will help alleviate the problems of small businesses by ensuring that most if not all components will be compliant. The components for this industry are available through retail and are easily substituted with products intended for adults; CPSC has no mechanism for preventing this, nor the budget to do so. Second, CPSC should engage the new entrants with a Safe Harbor program that sets aside the specter of jail and heavy fines for good faith actors. New entrants are beneficial for consumers, not enemies to be vanquished. Third, we recommend that the CPSC consider mechanisms by which it could work productively with the FTC with regards to the Registration Number (RN) system currently administered by the Federal Trade Commission for manufacturers coming under the Textile, Wool, and Fur Acts -- as a means of (1) identifying new entrants, and (2) reaching out to them.

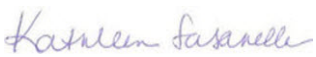
A possible solution is the integration of manufacturers into a standards notification system, perhaps via the FTC registration mechanism. As currently administered by the FTC, the RN system has not kept abreast of changes in the market place wrought by technology. Many applicants for a number find that they are rejected without justification, sometimes even when they are producing items specifically requiring an RN. This must evolve as the RN system is ideally suited for tracking purposes under CPSIA. The CPSC can use the RN to identify new entrants primarily by noting manufacturers who are not using an RN on their labels. By issuing those manufacturers a notice of a requirement to have an RN, the CPSC has an inexpensive way of identifying and notifying them of the requirements of CPSIA and other applicable regulations.

Perhaps modifying the RN system to include a small business compliance guide would be helpful. This would put new applicants on notice that they have certain obligations as a manufacturer of children's sewn products. A final change would be not only to increase the ease of obtaining the RN, but to use the RN database as a way of notifying manufacturers of changes in exactly the same way in which product registrations can be used to notify consumers of product recalls. Clearly, this suggestion is outside the scope of the law as it stands, but we see this as a way for CPSC to get a handle on the unique problems of compliance within this industry. New entrants are small, numerous, ephemeral, and make enforcement difficult on a limited budget; but they are unquestionably beneficial to consumers; therefore, CPSC should look for means to encourage their compliance, not ban them from the marketplace.

In conclusion, we urge the Commission to allow component testing for sewn products manufactured for children. The vast majority of the inputs are inherently safe. Final product testing will result in wasteful, expensive, and redundant testing, especially when considering the number of ways a single bolt of dyed cotton cloth can be combined to make multiple final products. We have noted some of the tradeoffs between final product and component testing, and we conclude that the goal of product safety will be best achieved by component testing. Among

the risks of component testing is a misunderstanding by new entrants to the market; we offer suggestions for addressing this. However, among the risks of final product testing is an endless cycle of enforcement, market exit due to the cost of compliance, an increase in price and decrease in consumer variety, entrepreneurial entry, and noncompliance. Overall, though, because of the ease of component substitution, we believe that component testing by textile and hardware manufacturers and the resulting creation of competitive pressures to eliminate noncompliant materials at the source will lead to a greater probability of safety.

Respectfully submitted January 27, 2009



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Appendix A - Comparison of textile and related standards

Measure	CPSIA	ASTM 973	EN 71	Oeko-Tex babies	GOTS
Lead content	600 ppm [1] 300 ppm [2] 100 ppm [3] 90 ppm [4]	90 ppm (migration)	90 ppm (migration)	0.2 ppm	0.2 ppm [5] 1 ppm [6]
Antimony	N/A	60 ppm (migration)	60 ppm (migration)	30 ppm	.2 ppm
Arsenic	N/A	25 ppm (migration)	25 ppm (migration)	0.2 ppm	.2 ppm
Asbestos	N/A			banned	
Cadmium	N/A	75 ppm (migration)	75 ppm (migration)	0.1 ppm	.1 ppm
Chromium	N/A	60 ppm (migration)	60 ppm (migration)	1 ppm	< 1.0 ppm [5] < 2.0 ppm [6]
Chromium VI	N/A	N/A	N/A	under detection limit	0.5 ppm
Cobalt	N/A	N/A	N/A	1 ppm	< 1.0 ppm [5] < 4.0 ppm [6]
Copper	N/A	N/A	N/A	25 ppm	< 25 ppm [5] < 50 ppm [6]
Formaldehyde	N/A	N/A	N/A	0.1 mg/m^3 [7]	
Mercury	N/A	60 ppm (migration)	60 ppm (migration)	0.02 ppm	.02 ppm
Nickel	N/A	N/A	N/A	1 ppm	< 1.0 ppm [5] < 4.0 ppm [6]
Selenium	N/A	N/A	N/A	N/A	< 0.2 ppm
Phthalates	-	-	-	-	"Prohibited are plastisol printing methods using phthalates and PVC."
DEHP, DBP, BBP	0.1% Children's toy or child care article	N/A	N/A	0.1 %	N/A
DINP, DIDP, DnOP	0.1% Children's toy that can be placed in the mouth or child care article	N/A	N/A	0.1 %	N/A
PBB, TRIS, TEPA, pentaBDE, octaBDE	N/A	N/A	N/A	banned	N/A
TBT, TPhT	N/A	N/A	N/A	0.5 ppm	N/A
DBT	N/A	N/A	N/A	1 ppm	N/A

[1] August 2008, substrate
[2] August 2009, substrate
[3] August 2011, substrate
[4] August 2009, paint
[5] non-outerwear
[6] outerwear
[7] formaldehyde "emission of volatiles"