

When safety comes first

Welcome to TnP's quarterly Safety Roundtable. We know that safety is paramount in the toy industry, which is why we have brought together some of the finest minds in the safety sector to answer some pressing questions. This month Bureau Veritas' Malcolm Horner, Intertek's Philip Bullock and Rob Hinchcliff and UL's Keith Richards give us an insight into hot topics within the industry

Malcolm Horner, Toy Technical Consultant, Bureau Veritas Consumer Products Services

What are the biggest concerns currently for your clients with regards to testing toys?

We do get many questions around acoustics requirements (see below). But generally, I would say that the cost is probably the main concern. Although all laboratories do what they can to minimise the cost by grouping together components and materials for testing where permitted by the test method, there are now so many chemical tests that could be carried out to show that the toy meets the legal requirements, that the cost is increasing a lot. Consequently, it is crucially important that manufacturers carry out a detailed chemical safety assessment. The EU Commission's Guidelines do say that the scope of testing may be based on the results of that assessment. We are also asked questions regarding chemicals in recycled toys. Indeed, how can you ensure that recycled toys are fully compliant to the chemical requirements of the Toy Safety Directive? Looking at the RAPEX notifications since the beginning of the year, toys are the most notified product category. With children's safety being at the forefront of surveillance officers' minds across Europe, product compliance is as critical as it has always been. And for those companies who are selling their toys internationally, there is the need to understand which standards are applicable in each market. This is where technical experts like Bureau Veritas, who have a global network of laboratories and consultants, can support.

We enquired in our last toy safety feature if there has been an increase in failure while testing to the updates acoustic standard – can you give us an update on the findings from your laboratory as this is an issue for many companies?

From the information gathered so far, it looks as though the new acoustics requirements that come into effect on the 30th September this year are going to be particularly onerous



for those types of toys that were not previously within the scope of EN 71-1. This will include percussion toys such as xylophones and drums, and wind toys such as whistles and musical instruments.

Are there any impending changes to the Safety Directive looming that toy companies should be aware of?

One of the big forthcoming changes will be the new standard for trampolines. Currently, there is no Harmonised Standard for toy trampolines. For more than eight years now, a CEN working group has been tasked with the job of creating a new standard for

toy trampolines. It would appear that the publication of the new EN 71-14 standard is fast approaching. The draft standard will shortly be launched for a Formal Vote and it is possible that the standard could be published either late this year or early 2015. Amongst other things, the standard will address aspects such as enclosures, durability of materials, entrapment, pinching and crushing hazards, sharp edges and points, access devices, padding, strength, mat deflection, stability and warnings, marking and instructions. The European Commission has recently amended the Toy Safety Directive to allow the presence of nickel in electrical toys (in addition to the already existing exemption for nickel in stainless steel). This is a rare, but in my view, sensible relaxation. Nickel is classified (under Regulation (EC) No 1272/2008) as a carcinogenic category 2 substance and as such would not normally be permitted in toys or parts of toys in concentrations above 1%. However, under certain circumstances, metallic nickel is not considered to pose a significant risk to the health of children. Many electric toys use metallic components which contain metallic nickel (plating, coatings and alloys enabling electrical conductivity). The EU Commission therefore asked the Scientific Committee on Health and Environmental Risks (SCHER) for an opinion on the risks associated with metal nickel in electric toys.

The Committee concluded that the health risk due to nickel exposure when handling toys was low. The Committee further concluded that the use of nickel in parts of toys allowing the correct electric function of toys will result in very low potential for exposure to nickel by oral and dermal intake.

The EU Commission has also lowered the limits for three flame-retardant plasticisers: TCEP, TCP and TDCP, and Bisphenol A. TCEP is a phosphate ester used as a flame-retardant plasticiser in polymers. Halogenated alternatives to TCEP (TCP and TDCP) are also concerned by the new limit of 5mg/kg (content limit).

Bisphenol A is used as a monomer in the manufacture of polycarbonate plastics and has been found in certain toys. It is classified under the CLP Regulation as toxic for reproduction category 2. As with TCEP, in order to offer a high level of protection to children, the EU Commission has further restricted the migration limit of Bisphenol A in toys (0.1mg/l).

Do you find the testing of certain toys is seasonal and if so, what is currently being tested for most commonly and what should companies be looking out for?

The traditional pick seasons for toys are Christmas and summer. We currently receive all sorts of toys at our UK laboratory (plush toys, games, electric toys, outdoor toys, dress ups, acoustic toys, licensed premiums and ride-on toys, to name only a few categories) as our clients are now testing for Christmas 2014. As a toy consultant I get to see all the Christmas bestsellers before the public. Also, clients with trampolines are now asking about the forthcoming new standard.



Keith Richards, Technical Director – European Toys and Children's Products, UL

What are your biggest concerns currently with regards to testing toys?

The main concerns relate to the frequently changing international legislation and standards. Our clients are looking for opportunities in the global market and are ideally looking to supply one product for all markets. Unfortunately increased complexities of legislation makes this extremely difficult.

We enquired in our last toy safety feature if there has been an increase in failure while testing to the updates acoustic standard – can you give us an update on the findings from your laboratory as this is an issue for many companies?

It is early days to collate data on the new tests. We are finding failures of products that are now within scope and were not required to be tested under the old standard such as percussion and wind activated toys. Items such as musical instruments and whistles can often achieve acoustic dB levels in excess of those stated in the standard and have to be modified in order to comply with the toy standard requirements.

Are there any impending changes to the Safety Directive looming that toy companies should be aware of?

There have been a number of recent amendments to the Toys directive. Flame retardants TCEP, TCP, TDCP and the monomer Bisphenol A now have specific limits values for chemicals used in toys intended for use by children under 36 months or in other toys intended to be placed in the mouth. The permitted use of Nickel has been updated so it is now allowed in stainless steel and in toy components which are intended to conduct an electric current. Toy companies should also be aware of changes to REACH with the introduction of requirements for Polycyclic Aromatic Hydrocarbons in toys.

Do you find the testing of certain toys is seasonal and if so, what is currently being tested for most commonly and what should companies be looking out for?

There are seasonal variations in the types of work being requested but during the summer period there is a bigger mix of products. Often new products are being developed so we often see the prototypes. There is a clear move to use electronic components in toys some incorporate Blue tooth technology. This is often a new area for many clients and can be complicated to understand.



Rob Hinchcliffe, UK Toys & Hardlines Business Line Manager and Philip Bullock, Technical Manager – Toys & Hardlines, Intertek

What are your biggest concerns currently with regards to testing toys?

Since last year, there has been a noticeable decline in third party testing within the European toy industry. This may be a reflection of market conditions, but could also be a kick-back against ever-spiralling costs and increases in legislation. There is a danger that in cutting back, some toy companies are taking undue risks, cutting corners and possibly not demonstrating enough due diligence if challenged by enforcement. These decisions could have much greater repercussions to the industry in the long-run.

We enquired in our last toy safety feature if there has been an increase in failure while testing to the updates acoustic standard – can you give us an update on the findings from your laboratory as this is an issue for many companies?

As we have gained more experience of a wider range of toys, our initial concerns have been confirmed. Toy manufacturers and laboratories are facing the challenges of existing



products which no longer comply with the new requirements as well as difficulties in applying the new standard. For example some types of toy are difficult to classify in terms of their type or exposure category which could potentially lead to differences between test results. Along with practical difficulties in applying the tests, for example for voice toys, this has led to work at a European level on

developing a guidance document to help with some of the issues.

Do you find the testing of certain toys is seasonal and if so, what is currently being tested for most commonly and what should companies be looking out for?

We tend to find toy testing is cyclical. We normally see many toy companies testing their products in two year cycles. As such, many companies have not tested on-going product lines this year, which is concerning with 2013 having been such a big year for regulatory changes. The testing we have seen this year tends to be more skewed towards the chemical requirements; as clearly, this is an area that still relies more heavily on third party verification and testing. However, we would tend

to suggest that physical testing isn't ignored at the expense of chemical requirements. In addition, we would suggest that Article 18 Safety Assessments aren't ignored either. This does appear to be an area still neglected by many companies and missing from Technical Files.

Are there any impending changes to the Safety Directive looming that toy companies should be aware of?

From 30 September new requirements in the amended EN 71-1 will apply to toys placed on the EU Market from that date. Apart from the changes for sound producing toys, these changes apply a more pragmatic approach to paperboard products which will result in less of these products failing to comply. Other changes include guidance on best practice for labeling and warnings, extension of the requirements for plastic bags and a clarification of the definition of "elastic" in the context of the small parts exemption.

In terms of changes to the directive, the exclusion of nickel from the CMR requirements has been extended from July 2015 to parts which are intended to conduct electricity. From December 2015 there will be restrictions on Bisphenol-A and a number of flame retardants.

