**Test & Measurement Coalition**

**General comments on Oeko Institute questionnaires**

The Test & Measurement Coalition would like to thank you for the attention to our exemptions requests. As a response to your questions, we have prepared some additional information to our initial submission. As many of the questions refer to efforts for substitution, status of research and product conversion projections, we felt that it is be very important to explain the regulatory developments related to the old exemptions in the context of the RoHS recast and the inclusion of category 9 in the RoHS scope. These questions may be relevant for the categories which were already in scope and which were expected to work on alternatives. The context is however different for category 9 which was not in the scope and for which old exemptions were expected to apply and this being one of the critical conditions for inclusion in the scope of RoHS.

Preliminary remarks

We would like to emphasize that our requests relates to all category 9 monitoring and control products. We would like also to stress that the T&M Coalition can only represent the business requirements of its members and will not be brought into discussions regarding why producers of other categories of products have not submitted any (similar) exemption requests.

Our assessment of the feasibility of coming into scope by 2017 is based on the presumption that old exemptions will continue to apply and it was accepted as such by the Commission. The “old” RoHS exemptions are critical for the timely transition of category 9 industrial products by the 2017 inclusion date. If the exemptions are not continued, category 9 will not be able to ensure conversion of their products within the deadlines, which will result in premature product withdrawal and obsolescence with substantial negative impact on EU industrial customers and European research.

Category 9 producers who have already invested in systems to manage and maintain suppliers’ declarations for RoHS compliant parts are being essentially penalized by the change in exemptions compared with those who have not started their portfolio conversion activities due to the need to recollect this data and redesign their compliance systems and products.

1. Regulatory context

Category 9 was initially excluded from the scope of RoHS I and therefore restrictions were not applicable to category 9 products. Many of exemptions initially granted to the other categories are also used in category 9 applications. These applications are critical for the reliability of our products.

* 1. Old exemptions continuation for category 9

*The need for continuation of the old exemptions for the new category9 coming into scope was confirmed both by the European Commission and ERA.*

In 2006, the Commission launched several studies assessing the conditions needed to bring category 9 into RoHS scope. The purpose was to study and define the date for brining category 9 into the scope, given the long lifetime and the constraints related to redesign; but also to determine the exemptions needed for category 9. It is important to stress that the Commission presumed that the old exemptions will continue to apply for the new categories and therefore the studies focused **only** on determining which exemptions, in addition to the existing ones, should be granted.

This was recognised by the ERA study which presumed that the existing exemptions will continue to apply to the newly in-scope categories 8 and 9. The ERA study also stressed that “old” RoHS exemptions are critical for the timely transition of category 9 industrial products by the 2017 inclusion date.

(References to existing exemptions used in categories 8&9 are on pages 6, 55, 56, 197, 199, 224, 241 & 243; <http://ec.europa.eu/environment/waste/pdf/era_study_final_report.pdf>).

As a result, the Commission issued a proposal in which all old exemptions were listed in Annex IV and the new additional exemptions were listed in Annex VI. During the RoHS recast political process, the institutions focused on finding the right wording for clarifying that these exemptions are available for categories 8 and 9 , which resulted in a new paragraph 2 in art. 5 defining a 7 year validity period for the exemptions listed in what became Annex III when applied to category 8 and 9 products. Unfortunately the modifications made by the jurist linguists by copying the decision of the old exemptions review in annex results in unclear status of the applicability of the old exemptions to category 8 & 9, which now requires the submission of category 9 specific exemption requests.

Lack of impact assessment of the old exemptions for category 9

The expiry dates of the old exemptions are applicable only to the old categories for which they were assessed. The old exemptions have not been assessed for category 9. Therefore, the expiry dates decided in 2009 were irrelevant for category 9 producers, as they were not yet in the scope of RoHS and their applications have not been assessed during the revision process.

In parallel with the RoHS recast process, the old RoHS exemptions have been revised. This changed many substance restriction values, scope and expiry dates for many of the exemptions, some of them occurring already this year. The Annex III listing the old RoHS exemptions was replaced by the Annex of the Commission Decision of 24 September 2010.

Importantly, Annex III did not specify that these expiry dates only apply to the old RoHS categories 1 to 7 and 10. Consequently, when now reading art. 5 in combination with Annex III, there is no clarity about the application of the exemptions to category 8 and 9. It could be interpreted that the Annex III exemptions expire for all categories in the timeframes published.

However, this does not reflect the legal scope of the Commission Decision of 24 Sept. 2010. This decision was the outcome of the revision of the exemption for their application only to categories 1 to 7 and 10. When Oeko institute was preparing the study on the exemptions review, our comments for the need to continue many of the exemptions for category 8 and 9 were noted but not officially included in their recommendations nor in the Commission decision. The justification provided at that time was category 8 and 9 were not yet in the scope and the revision focused **only** on the categories that were currently in scope.

Substitution

Long term reliability of alternatives not evaluated for category 9

The research into alternatives for applications covered by the old exemptions; testing and evaluation of available substitutes and defining of transition programmes; was not considered a priority as there was no apparent regulatory requirement since these applications were presumed to be available for the new categories brought into the RoHS scope.

,It was expected during the preparation of the RoHS recast that the old exemptions would continue to be available For category 9. Consequently, category 9 producers focused their efforts in the research of alternatives for applications other than those covered by the existing exemptions. In the preparatory phase of the RoHS recast we submitted substantial amount of information to the Commission, including very detailed company specific confidential information about internal substation programmes, status of research, results and prospects, costs and investments, human resources dedicated to RoHS conversion activities. Consequently, the long-term reliability of alternatives has not been evaluated for our applications.

Our products have long life time of 10 years on average. Substitutes need to be tested to meet customers’ expectations of long term reliability of products capable of consistently meeting published specifications. These requirements go substantially beyond those of consumer goods applications.

Any forced change would require significant data collection from the supply chain, product review, redesign and requalification. This effort and cost would be disproportionate to the benefits of short-term substitution for the limited application of these parts in the monitoring and control sector.

2.2. Specificity of category 9 products

Alternatives for the applications covered by the old exemptions have not been researched. If this process starts now, we need significant time before being able to confirm the suitability of the substitutes. This is related to the specificity of the development of category 9 products:

1. A large percentage of products in category 9 are used to design and build cutting edge technological equipment and are themselves therefore one step more advanced and complex than any product developed or manufactured utilizing these Monitoring and Control instruments. This places extraordinary constraints as regards to reliability, performance and quality, quite unlike consumer equipment;
2. Category 9 producers do not benefit from anything like the efficiencies of scale such as manufacturers of mass-produced parts enjoy due to significantly smaller shipment quantities;
3. As Test & Measurement equipment, instruments need to undergo formal third-party qualification and / or certification. This process is lengthy and bureaucratic and requires additional review upon any material change. This equally applies to other category 9 producers;
4. Test & Measurement equipment have an average life span of 10 years with some products sold with guarantees to operate correctly for as long as 30 years. This frequently applies to other category 9 producers;
5. Test & Measurement equipment, because of its longevity and complexity, goes through less frequent and slower redesign cycles than typical consumer electronics. Normally a full redesign isn’t done for a minimum of 3 years, and 7 year redesign intervals are not unusual. Once undertaken, the time required to redesign and fully re-qualify a product can take two to three years. For a more limited enhancement of a product a year is not unusual. A ground-up development and design of a completely new product can take even longer, on the order of 3 - 5 years.
6. Test & Measurement instruments require highly technical engineers for their design and manufacture Category 9 producers have specialized and finite resources available in line with existing business commitments, but would not be able to undertake unplanned rapid redesigns of existing equipment driven by unforeseen exemption withdrawals;
7. Category 9 producers market a huge quantity of different products in their portfolio unlike producers of consumer products in other categories. Agilent, the largest Test and Measurement manufacturer produces several thousand different instruments compared for example to mobile phone producers who have typically only tens of products subject to RoHS but ten times the number of engineers. The transition of Category 9 producers portfolio to become RoHS compliant is limited by the sheer scale and limited human, technical and financial resources available to make the transition, and not due to a lack of effort or willingness;
8. Category 9 products are produced in vastly smaller quantities compared to categories already in scope of RoHS. The entirety of Category 9 product volumes in total are representative of less than 0.25% of e-waste[[1]](#footnote-2) , of which industrial Test and Measurement is a subset. Consequently, the amount of substances used in any exemption for category 9 can be estimated pro-rata from existing data from Categories 1 to 7 and 10 for each exemption requested. Therefore the potential environmental impact is insignificant.
9. Test and Measurement instrument complexity is significantly greater than that of consumer products. As reflected in part count, several thousands of components are often required in a single instrument. This adds to the burden of developing appropriate materials compliance systems that provide reconcilable proof of compliance. Furthermore, many parts have multiple suppliers to assure production continuity. This multiplies the number of suppliers’ declarations associated with exemptions that would need to be recollected following any changes;
10. Test and Measurement producers do not rely on continued availability of material on the market that utilize the exemptions requested. Material that is critical to a product’s performance is frequently brought in quantities to cover projected production and support lifetime volumes (life time buy). The costs involved for purchase and management of this inventory can be economically justified against the cost and effort of product redesign and requalification. Redeploying resources to perform product design and requalification has a portfolio impact as planned new product introductions would be delayed; a material impact on customer satisfaction, market expectations and business performance;

Summary

Based on the received assurance that our category exemptions would remain available, as detailed above, the Test and Measurement sector has invested millions of Euros in systems and data to support the development of RoHS compliant products with a view to meeting the intended compliance dates. Many products have already been introduced which have been designed to meet the substance restrictions. The investment in these product developments; the materials compliance systems and supporting component data is all thrown into question if the expected exemptions are changed.

1. UN study at <http://ec.europa.eu/environment/waste/weee/pdf/final_rep_unu.pdf> [↑](#footnote-ref-2)