



Department
for Environment
Food & Rural Affairs

Post Implementation Review (PIR) and Evidence Analysis

The Restriction of the Use of Certain Hazardous
Substances in Electrical and Electronic Equipment
Regulations 2012

January 2025

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Background

This is the second Post Implementation Review of the 2012 RoHS Regulations, with the first covering a five-year period up to 2 January 2018. The second PIR review, looking at the subsequent years from early 2018 through to September 2024, therefore takes in the period following the UK's exit from the EU. At Implementation Period (IP) completion day on 31 December 2020 a separate RoHS regime was established applying in Great Britain. The requirements set in the EU RoHS Directive continue in Northern Ireland under the Windsor Framework. Despite those changes, it should be noted that for the duration of this review the substances, the substance thresholds and the exemptions were completely aligned between the EU and the whole of the UK.

This PIR considers both the EU RoHS Directive and the UK RoHS regulations, including the RoHS requirements applying in GB following EU Exit.

European-wide legislative framework to restrict the use of certain hazardous substances in new EEE so that its use did not create barriers to trade, to protect human health, and the environment.

As a single market directive, RoHS sets harmonised standards to ensure free movement of goods across the EU Single Market by applying the same restrictions to producers regardless of the point of manufacture along with ensuring environment protection. This requirement to harmonise standards means EU member states have very little flexibility with regards to transposition.

EU RoHS Directive

Introduction

Dedicated legislation controlling the use of hazardous substances in electrical and electronic equipment was first introduced in 2002 through Directive 2002/95/EC. That first RoHS Directive restricted the use of 6 hazardous substances, namely lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE). It applied across 8 categories covering large and small household appliances, IT and telecommunications equipment, consumer equipment, lighting equipment, electrical and electronic tools, toys leisure and sports equipment and automatic dispensers. Medical devices and monitoring and control equipment were excluded. A limited number of exemptions applied where continued use of the restricted substances was justified in particular applications.

The RoHS Directive was, and continues to be, a partner Directive to the Waste Electrical and Electronic Equipment Directive, which sets controls on how electrical equipment is

treated when waste and promotes its reuse, recycling and recovery. RoHS, which applies upstream, effectively at manufacture, in limiting the use of hazardous substances and reduces the risk of in-use exposure and facilitates treatment as waste. In doing so, it protects human health and the environment and provides a European-wide legislative framework to restrict the use of certain hazardous substances in electrical and electronic equipment (EEE) so that its use does not create barriers to trade.

The RoHS Directive was recast in 2011 as Directive 2011/65/EU, commonly known as RoHS 2. The Directive moved to “open scope” to cover all electrical and electronic equipment unless specifically excepted. It achieved this through a change to 11 categories, including medical devices and monitoring and control equipment, as well as a catch all category 11 “Other EEE not covered by any of the categories above” i.e. listed under categories 1-10. The recast Directive also introduced conforming assessment and Conformité Européene (CE) marking requirements. Directive (EU) 2015/863 added four further substances to the existing six, namely Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) which are all used as plasticisers.

The above measures were all considered under the first PIR, falling within the five-year period from the enforcement date (2 January 2013) to 2 January 2018. The European Commission also undertook a review of the EU RoHS Directive. The key findings of this review were that the EU RoHS Directive (2011/65/EU) met its objective on reducing the presence of hazardous substances in EEE although it was difficult to isolate the costs in doing so due to the interaction with other legislative requirements. There were some unintended consequences relating to the potential for reuse and use of spare parts and on pipe organs due to the lead content in the pipes. Directive (EU) 2017/2102 sought to address these issues.

EU RoHS Directive – 2018 to 2022

There were no changes to the RoHS Directive in structure, scope or approach beyond the usual cycle of exemption consideration. Over the calendar year 2018 to 2022 period over 40 Commission Delegated Directives were published relating to exemptions, with the exemptions broadly split between new exemptions (20%) and renewals (80%). The processes attached to consideration of exemptions is not insignificant. Industry is required to submit applications setting out scientific and technical justification for the exemption. Once applications have been received the Commission appoints technical consultants to consider them and make recommendations. This is followed by consultation, both public and through the member State expert committee. The Commission will then seek the necessary agreements, and if appropriate prepare and publish an amending delegated Commission Directive giving effect to the decision reached.

EU RoHS Directive outside the EU

EU RoHS is a model that has been adopted in over 40 countries outside the EU including Brazil, China, Japan, Taiwan and South Korea recognising the advantages of setting consistent standards and as major electrical and electronic equipment suppliers to the EU market.

EU Review of RoHS

The Commission undertook a comprehensive review of the RoHS Directive over the period 2019 to 2023, culminating with the publication of a review report and accompanying staff working document on 7 December 2023. The review was supported by two studies to help the Commission evaluate the effectiveness, efficiency, relevance, coherence and added value of the Directive in pursuance of their better regulation obligations.

The first study started in 2019 and was published in March 2021. The study followed a four stage approach of evaluation design, data collection, data analysis and conclusions and reporting. Data collection included extensive engagement with business, member States and Non-Government Organisations (NGOs) with 163 responses to the public consultation undertaken over the period September to December 2019 and with 51 of those responses from the UK. Preliminary findings were discussed with over 100 participants in March 2020.

The main finding of the first report were that the RoHS Directive has been successful in reaching the objective of reducing hazardous substances in EEE in the EU, with an estimated 67% reduction in the volume of substances avoided in EEE since the Directive was first introduced in 2002. The study also concluded that the Directive had contributed to the harmonisation and functioning of the internal market, by setting clear standards and providing a level playing field for producers of EEE. Overall, compliance with RoHS was assessed to be high and implementation mechanisms functioning as intended. The relevance of the Directive is high: the needs to protect human health and the environment are still high and will continue to exist in the near future. Its EU added value is also high, and the evidence collected for this study, including the statements from stakeholders, suggests that the same level of harmonisation could not have been achieved in the absence of RoHS. However, the study also recognised that there were some challenges, particularly with regard to the exemptions regime which was considered to be overly slow and overlap with other EU legislation regulating substances such as the Ecodesign Directive, Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation, and the Persistent Organic Pollutants (POPs) Regulation.

The Commission published a further follow-up study in May 2023. That study focused on those areas identified in the May 2021 report for amendment including those described immediately above. As with the earlier study there was significant engagement with

interested parties. The latter part of the study looked at data gaps identified in the 2021 report.

On 7 December 2023 the Commission presented its evaluation of the RoHS Directive and published a Staff Working Document. The findings and recommendations drew on the reports and concludes that the RoHS Directive is working well and remains relevant. It also recognised that there are issues with exemptions, including their assessment and with the updating of the substance restrictions. To that end, the Commission signalled their intention for a targeted amendment to reattribute scientific and technical tasks to the European Chemicals Agency (ECHA).

UK RoHS

On 23 June 2016 the UK electorate voted to leave the European Union. Under the terms of the Withdrawal Agreement between the UK and the EU, the UK left the EU at 11:00pm on 31 January 2020. Transitional arrangements provided for an Implementation Period until 11:00pm on 31 December 2020 during which EU requirements continued to apply. In order to facilitate dual access to both the UK Internal Market and EU Single Market, Northern Ireland continues to apply certain EU regulations, including those relating to the restriction of hazardous substances, in accordance with the terms of the Windsor Framework. The RoHS Directive is listed in Annex 2 of the Windsor Framework. There is an ambulatory reference in the UK RoHS regulations which means that EU changes to exemptions automatically apply in Northern Ireland without the need to bring forward amending domestic legislation.

The Hazardous Substances and Packaging (Legislative Functions and Amendment) (EU Exit) Regulations 2020 (SI 2020/1647) established parallel RoHS regimes in Northern Ireland and Great Britain. As set out above the regime in Northern Ireland follows exactly the EU requirements. Following the end of the implementation period different processes now apply in Great Britain, with the legislative and administrative powers previously exercised by the Commission now vested in the Secretary of State in relation to England, Scotland and Wales. For example, applications for exemptions are now made to and determined by the Secretary of State. As a consequence, Defra ran a tender exercise for the provision of technical advice in relation to RoHS, with Anthesis subsequently appointed under a call-off contract.

Transitional arrangements were made under the 2020 regulations for those exemptions where applications had been made to the Commission prior to IP completion day but where decisions had not yet been taken on those exemptions. Over 70 such exemptions were listed in Table 1 of Schedule A2 to the 2020 regulations. The transitional arrangements included lighter touch processes, with no need for those exemptions to be submitted separately for GB and following the EUs technical and scientific analysis a slimmed down analysis considering GB implications. These light touch reports covering

GB analysis were charged at £10,925 per exemption application under the call off contract arrangements. The 2020 regulations also provided for the continuing recognition of an EU declaration of conformity and CE marking in GB. The Product Safety and Metrology etc. (Amendment) Regulations 2024 (SI 2024/696) removed the date backstop, meaning that as long as the EU and GB RoHS requirements remain in alignment the EU documentation can be used to demonstrate compliance with the GB RoHS requirements.

For exemption applications following IP completion day the full GB processes apply. These include a requirement for public consultation together with an in-depth technical assessment. The costs for in-depth reports per exemption application were £36,625. Two GB applications were received between IP completion day and the 2 January 2023. To the end of September 2024 a further 7 GB exemption applications have been received. None have yet been determined by the Secretary of State. The Restriction of Hazardous Substances in Electrical and Electronic Equipment (Exemptions) (Fees) Regulations 2022 (SI 2022/1383) introduced a fee of £39,721 on those making exemption applications to cover the costs to government in considering exemption applications. The fee has applied since 6 April 2023 with only 1 of the GB applications received to the end of September 2024 having been subject to the fee.

Beyond the statutory instruments already covered, there have been four more over the five-year period to 2 January 2023 covering RoHS, and not otherwise related to EU Exit operability changes. They were SI 2019/422 which implemented EU Directive 2017/2102 and covered changes to improve reuse and spare parts as well as providing an exclusion for pipe organs. SI 2021/422 corrected an error in a previous SI relating to the cadmium threshold. SI 2021/1395 and SI 2022/622 made two changes and three changes respectively to exemption entries in Table 1 of Schedule A2 to the 2012 RoHS regulations, mostly setting new exemption expiry dates.

Economic Analysis

Rationale for Government Intervention

The Restriction of Hazardous Substances (RoHS) Directive and the 2011 recast of the Directive were adopted on the basis of the precautionary principle to protect human health and the environment from hazardous substances in electrical and electronic equipment. Whilst the number of restricted substances has increased from the initial 6 to 10 and the recast widened the scope to cover all electrical products unless specifically excluded the rationale for intervention remains unchanged against the background or a period of stability in RoHS requirements.

Negative externalities: These are associated with hazardous substances in Waste Electrical and Electronic Equipment (WEEE) going to landfill (and exported to countries where uncontrolled and unsafe recycling occur) and the consequential risk of human

toxicity, freshwater aquatic toxicity, terrestrial toxicity and semimetal toxicity. These toxic risks and their impacts are not priced into the market and the social costs are greater than the private costs. The RoHS recast Directive was to provide additional environmental and health benefits from a widened scope.

Government failures: The 2011 recast Directive sought to improve the consistent application of RoHS across member States and introduced conformity assessment and CE marking requirements. The 2017 Directive sought to address a number of shortcomings, including an unintended consequence for pipe organs and improving the prospect for reuse and spare parts. The most recent Commission review highlights that reuse and spare parts are continuing issues together with transparency and delays associated with the exemptions regime. Here too, there are issues with the UK regime and the parallel GB exemption processes that have been in place since the start of 2021 which increases burdens and costs on both industry and government. To improve EU exemption processes the Commission is transferring consideration of RoHS exemptions to the European Chemicals Agency (ECHA). In the UK, and following the appointment of the new Government in July 2024, Defra is exploring options for streamlining GB exemption processes.

Implementation and Transposition - Industry Survey

A survey was conducted to gather the thoughts and opinions of industries affected by the RoHS Directive, its implementation into UK law and since 2021 the RoHS regime applying in GB. We approached a number of leading trade association groups, to whom we have previously briefed on RoHS matters, and whose members have key interests in RoHS issues. We have also approached directly the 9 companies and organisations that have made GB RoHS applications since the start of 2021. As for the 1st PIR review the absolute number of responses is relatively low with 23 received. This included 10 responses from representative organisations with a collection membership of over 2,000 companies from large multinationals through to small and medium sized enterprises.

There were some very clear and consistent views expressed. The separate GB RoHS regime was considered unnecessary and duplicative, with the introduction of charges for exemption applications from April 2023 both unforeseen and unwelcome. Beyond the concerns relating to duplication of effort and cost related to the separate GB exemptions regime, the overriding industry view is to follow one set of consistent requirements. As a general reflection, taking into account the relatively low response, business is generally seized of the benefits of RoHS in minimising the use of hazardous substances in electrical equipment although not supportive of the post EU Exit mechanisms in place covering GB.

As for the 1st PIR three main questions were asked in the survey. Sub-questions were added to seek views on the approach to RoHS in the UK following EU Exit.

Question 1. To what extent are the existing regulations working?

Question 2. Are the existing regulations still the most appropriate approach?

Question 3. Could refinements be made to the regulations, what scope is there for simplification and improvement?

Responses to Question 1 “To what extent are the existing regulations working?”

Whilst the scoring to question 1 was somewhat mixed, this was largely a reflection of the extent to which responses focused on the introduction of the separate GB regime following EU Exit. Harmonised requirements were considered to be an effective way of controlling the use of hazardous substances in electrical equipment with the core of the approach remaining appropriate. However, the introduction of the separate GB RoHS regime from the start of 2022 was considered to be negative, raising the risk of divergence in standards with the EU and increasing burdens and costs on business, including the introduction of an exemption application fee from April 2023.

Responses to Question 2 “Are the existing regulations still the most appropriate approach?”

There was robust comment on the introduction of the GB RoHS regime following EU Exit, with responses including that it creates unnecessary additional costs for no benefit. Others made clear the importance of continued alignment with the EU requirements, observed the additional costs in negotiating with both EU and UK authorities and the increased complexity of supply chain management with two regimes. Many responses called for the GB regime to be rolled back with reliance on the EU regime. Failing that, the GB regime should follow exactly the EU requirements with no divergence.

However, there was recognition that the transitional, lighter-touch arrangements put in place for the assessment of RoHS exemptions already lodged with the EU up to the end of 2021 were positive. Also, for the measures taken to provide for continued recognition of the CE mark as a demonstration that the RoHS requirements in GB had been met.

Whilst observing that there are significant costs attached to the RoHS regime, without generally setting out those costs, respondents noted that the legislation created a level playing field. Put simply they could not envisage how a voluntary approach would work or be enforceable. Some added that voluntary arrangements here would create

confusion with the potential for different manufacturers to go in different directions as well as the difficulty in establishing a common understanding through supply chains.

Unintended effects of the regulations were raised in the context of the introduction of the separate GB RoHS regime with alignment with the EU/risk of divergence with the EU the common theme. Some respondents highlighted the potential consequences of divergence including increased product cost to the consumer, reduced product availability and accidental non-compliance by manufacturers and importers.

Responses to Question 3 “Could refinements be made to the regulations, what scope is there for simplification and improvement?”

Responses to this question also majored on the separate GB RoHS regime introduced as a consequence of EU Exit. Although articulated in various ways from the rolling back of the GB RoHS regime to recognition of EU RoHS exemptions or instruction to not diverge the simple and consistent message from respondents is that in this particular instance the UK interest would best be served by aligning with the EU RoHS requirements as a matter of course.

One respondent noted the importance of fostering communication with peer market surveillance authorities.

Lastly many respondents indicated that the costs of compliance with RoHS requirements were significant involving administrative, management, technical and consultancy costs and included product development and management of the supply chain. Most respondents did not volunteer a figure, highlighting the difficulty in separating out those costs from other compliance activities and the extent to which such costs are attributable across multiple markets rather than to individual territories. Subject to those caveats and noting as a result the following is not limited to the UK, six businesses provided estimated figures. At the higher end a self-acknowledged speculative figure was £500k. Two others provided ranges, one at between £100k - £200k and another at £50k - £100k. The three other figures given were £30k, £50k and £80k.

Office of Product Safety and Standards – RoHS monitoring and enforcement

Over the five-year period from 2018 to the end of 2022, OPSS, (previously part of the Department for Business, Energy & Industrial Strategy) part of the Department for Business and Trade, conducted enforcement activities under RoHS. These included:

- ‘Market Surveillance’ projects targeted at EEE products, based on risk and intelligence,
- Investigating EU Safety Gate (RAPEX) alerts, received from EU countries, of RoHS non-compliant EEE products placed on the UK Market,
- Investigating complaints and referrals made to OPSS by Trading Standards, businesses, trade bodies and other enforcement agencies,
- Responding to and dealing with RoHS Statutory Notifications of non-compliant EEE received under Regulation 20 (b).

As part of these enforcement activities OPSS undertakes test purchasing and sampling of EEE products, reviews of technical documents and compliance systems required under the Regulations.

The following table provides a summary of the key activities and levels of compliance for the targeted enforcement activities from 2018 – 2022.

OPSS RoHS Enforcement Market Surveillance Projects Compliance and Outcomes

Project Name	Year	Sample Size	RoHS Content Compliance Rate	Summary of Failures	Hazardous Substance Failures	Labelling, DoC Failures
Electronic Cigarettes	2018	20	80%	15 failed on Labelling and/or Documentation and 4 failed on Hazardous Content under RoHS.	4	15
IMC Instruments	2018	6	50%	All 6 failed on Labelling and/or Documentation and 3 failed on Hazardous Content under RoHS.	3	6
Phthalates testing	2019	54	70%	No review done of Labelling and/or	16	n/a

				Documentation, however 16 failed on Hazardous Content under RoHS.		
In Vitro devices	2019	10	100%	4 failed on Labelling and/or Documentation and none failed on Hazardous Content under RoHS.	0	4
Smoke Detectors	2019	37	92%	7 failed on Labelling and/or Documentation and 3 failed on Hazardous Content under RoHS.	3	7
Battery Chargers	2020	17	35%	15 failed on Labelling and/or Documentation and 11 failed on Hazardous Content under RoHS.	11	15
Small Electrical Items	2021	16	43%	12 failed on Labelling and/or Documentation and 9 failed on Hazardous Content under RoHS.	9	12
Electric Motors	2021	11	27%	9 failed on Labelling and/or Documentation and 8 failed on Hazardous Content under RoHS.	8	9
Printer Cartridges	2021	73	99%	40 failed on Labelling and/or Documentation and 1	1	40

				failed on Hazardous Content under RoHS.		
Low cost High Street Retailer	2022	19	68%	3 failed on Labelling and/or Documentation and 6 failed on Hazardous Content under RoHS.	6	3
High Street Sports Retailer	2022	18	61%	10 failed on Labelling and/or Documentation and 7 failed on Hazardous Content under RoHS.	7	10
Children's Toys	2022	16	31%	15 failed on Labelling or Documentation and 11 failed on Hazardous Content under RoHS.	11	15
Total		297			79	136

Of the 297 items surveyed, 218 were RoHS substance compliant, a content compliance rate of 73.4%.

Of the 243 products investigated for documentation and labelling, as part of the Market Surveillance, 44% were identified with inadequate documentation and 56% failed due to the product not containing manufacturer / importer name and address.

Producers of EEE within the scope of the RoHS Regulations are responsible for ensuring that their products meet the requirements of the Regulations. To demonstrate compliance, a producer must prove that all components, materials, sub-assemblies that comprise the product are RoHS compliant. Furthermore, the act of placing a product on the market is a declaration by the producer that the product complies with the Regulations. Manufacturers are responsible for compiling technical documentation, known as the 'technical file', to demonstrate compliance with the regulations. This should include information on the design, manufacture and operation of the EEE, which together make it possible to assess whether the product meets RoHS requirements.

This documentation, including test reports, must be held by the manufacturer for a period of 10 years after the product has been placed on the market. Once the manufacturer has completed the technical file and carried out an assessment of conformity with the regulations, they must prepare a declaration of conformity.

This is a self-declaration that the EEE meets all of the RoHS requirements that apply to that product. By making the declaration, they assume all responsibility for compliance with the regulations. 46% of products investigated as part of the Market Surveillance activity did not have the correct technical documentation or were not labelled correctly.

The EU operates a Safety Gate (RAPEX) alert system, which reports on any non-compliant products, including those failing for RoHS content. OPSS reviews the alerts to identify any products that are available on the UK market and then undertakes an investigation. 30 EU Safety Gate alerts were received and investigated during this time period.

During the 5-year period OPSS received and dealt with 13 complaints and referrals for potential non-compliance of the RoHS regulations. OPSS also responded to 133 Statutory Notifications of non-compliant EEE received under Regulation 20 (b). These included a review of the compliance systems of the referring economic entity.

OPSS monitoring and compliance activities have continued through 2023 and 2024. Over the April 2023 to March 2024 period this included handling 97 RoHS Safety Gate Alerts, an increase of over 500% on the same period the previous year. This resulted in 6,400 product takedowns and 33 test purchases were undertaken. Each case also encompassed online product takedowns from additional suppliers identified during investigations and involved around 2,500 products. In addition, 19 Statutory Notifications have been dealt with involving over 100,000 products.

Where non-compliance has been identified, OPSS have ensured that the relevant requirements for the Producers, Importers and Distributors are understood and complied with. The compliance and enforcement activity data provided demonstrates that, with an ever-changing EEE market, Market Surveillance and business awareness forms an important part of this.

Conclusion

This PIR has been informed by a survey carried out involving companies affected by RoHS, enforcement data from the Office of Product Safety and Standards which sits within the Department for Business and Trade and a review of the Directive undertaken by the Commission over the period 2019 to 2023.

There is significant commonality in language and findings between this second PIR and the previous one. This largely reflects a period of stability in the EU Directive following the

2011 Directive recast and the 2017 Directive changes. This means that the core Directive requirements have remained the same over the entire period of this PIR, and which were previously considered in the first PIR. The usual cycle of exemption application, whether new or renewal, continued during the period. Whilst a separate RoHS regime was established covering GB following EU Exit, over the period of this review RoHS requirements in the UK and the EU remained aligned, including on exemptions.

It is widely considered by both government and business that RoHS continues to achieve its objective to reduce the risk to human health and the environment by controlling the use of the 10 hazardous substances within electrical and electronic equipment under a relatively straightforward and proportionate approach, as reflected by the widespread adoption of RoHS measures in other countries.

The recent Commission review of the Directive indicates that there are continuing concerns relating to reuse and spare parts, which the Commission has committed to consider within its overall approach to the circular economy. Similarly, the UK Government is committed to transitioning the UK to a circular economy. Within the EU there are also concerns relating to both the transparency and time taken to consider exemptions. The Commission is moving to transfer responsibility for technical assessment of exemptions to the European Chemicals Agency under its one substance one assessment approach together with the process for reviewing the list of restricted substances to address this concern. For the UK, industry has highlighted the duplication of effort in maintaining a separate RoHS regime covering GB with the increased cost, uncertainty and risk of divergence this creates. A key industry argument is that they wish to operate to a single set of standards with many businesses supplying both the UK and EU markets. This also bears on one of the two EU RoHS objectives to minimise trade barriers which also holds true in respect of the UK/EU trading partnership. Defra will consider the scope for streamlining GB RoHS processes to minimise such duplication and uncertainty whilst continuing to ensure UK interests are protected.

Post Implementation Review

<p>Title: Restriction of the use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012</p> <p>PIR No: PIR-60184</p> <p>Original IA/RPC No: BIS 0391</p> <p>Lead department or agency: Department for Environment, Food and Rural Affairs</p> <p>Other departments or agencies: Department for Business and Trade</p> <p>Contact for enquiries: Paul Hallett, rohs@defra.gov.uk</p>	Post Implementation Review
	Date: 15.01.25
	Type of regulation: EU/UK
	Type of review: Statutory
	Date measure came into force: 02/01/2013
	Recommendation: Amend
	RPC Opinion: Green

1. What were the policy objectives of the measure?

The aim of the Restriction of the use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (RoHS) was to support Defra's Departmental priority to improve the environment through cleaner air and water, minimised waste and thriving plant and terrestrial and marine wildlife. It contributes to this by reducing the quantities of 10 hazardous substances (lead, mercury, cadmium, hexavalent chromium and six further substances used as flame retardants or plasticisers - PBB, PBDE, DEHP, BBP, DBP and DIBP) used in the manufacture of Electrical & Electronic Equipment (EEE) placed on the EU market. RoHS reduces the risk of toxicity from Waste Electrical and Electronic Equipment (WEEE) and the adverse consequential ecological and human/animal health impacts.

2. What evidence has informed the PIR?

A survey of companies impacted by RoHS was carried out. Contact was made with a range of representative trade associations and companies to request they complete a questionnaire looking at various aspects of the UK RoHS regime. Data from these questionnaires has been used to inform this PIR.

The European Commission has reviewed the EU RoHS Directive, publishing reports in [March 2021](#) and [May 2023](#), with the May 2023 report informed by a public consultation undertaken over the period 10 March to 2 June 2022. Most recently, the Commission published a [review report](#) and [Staff Working document](#) on 7 December 2023. The findings have informed this PIR.

The Office of Product Safety and Standards, which is part of the Department for Business and Trade, regulates RoHS within the UK. They undertake regular monitoring and enforcement activities. These activities have informed this PIR.

3. To what extent have the policy objectives been achieved? (Maximum 5 lines)

The RoHS regulations target the highest priority of the waste hierarchy; waste prevention. It has reduced harmful substances and chemicals used in the production of EEE and prevented those substances entering the waste stream with consequential adverse impacts to human and animal health.

Since the regulations control the presence of these hazardous substances in electrical products RoHS also supports the circular economy through reuse and recycling, whilst reducing treatment risks.

Sign-off for Post Implementation Review: Chief economist/Head of Analysis and Minister

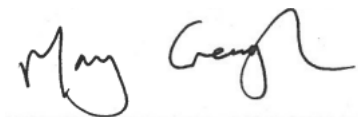
I have read the PIR and I am satisfied that it represents a fair and proportionate assessment of the impact of the measure.

Signed: Abi Farrag and Graeme Vickery

Date: 03/12/2024

Signed: Mary Creagh CBE MP

Date: 14/01/2025



Further information sheet

Please provide additional evidence in subsequent sheets, as required.

4. What were the original assumptions?(Maximum 5 lines)

The UK's RoHS Regulations were supported by a full Regulatory Impact Assessment (RIA) when they were laid before Parliament. The RIA (2006) provided a qualitative assessment of benefits. In terms of the costs of the RoHS Regulations, the RIA estimated that these would consist of research and development (R&D) costs, capital costs, additional operating expenditure, and administrative costs. The majority of the costs estimated were expected to be related to the restrictions on the use of lead as significant research was needed to change to lead free solders whereas the cost of using alternatives to the other five substances has been borne mainly by chemical suppliers.

Health and environmental benefits would be based on the reduction of hazardous substances into the waste stream and into the environment from landfill sites.

5. Were there any unintended consequences? (Maximum 5 lines)

Commission studies have highlighted a number of issues related to the operation of the current RoHS requirements. These include issues relating to exemptions and their analysis, the means of updating the list of restricted substances, issues related to reuse and spare parts and coherence with related EU legislation.

The Commission has announced its intention to transfer scientific and technical RoHS tasks to the European Chemicals Agency (ECHA).

6. Has the evidence identified any opportunities for reducing the burden on business? (Maximum 5 lines)

Beyond the steps being taken by the EU in respect of the Directive, Defra is considering the scope to streamline the RoHS processes applying in GB to remove or minimise duplication.

7. How does the UK approach compare with the implementation of similar measures internationally, including how EU member states implemented EU requirements that are comparable or now form part of retained EU law, or how other countries have implemented international agreements? (Maximum 5 lines)

All EU Member State have transposed RoHS into their domestic legislation. As a “Single Market” measure, the Directive sets consistent standards and provides an EU wide level playing field for business. As such, there is very little scope for Member States around transposition.

Some 40 other countries also use EU RoHS as the basis for regulating the use of hazardous substances in electrical equipment in their territories. These include Brazil, China, Japan, South Korean and Taiwan.

Up to the end of the Implementation Period on 31 December 2020, the UK applied the EU RoHS Directive in full, including dynamic references to the Directive to pick up exemption changes. Northern Ireland continues to dynamically align with the EU. A parallel RoHS regime has applied covering GB since the start of 2021. There was no divergence in GB/EU RoHS requirements in the period to 2 January 2023.