

Response to Consultation on the Control of Lead at Work Regulations 2002 exposure values and associated guidance

Only the questions relevant to Historic England are included below for ease of reading. The full consultation document is available here:

[The Control of Lead at Work Regulations 2002 exposure values and associated guidance - Health and Safety Executive - Citizen Space](#)

Chapter 5: Consultation questions – lead in blood action and suspension level proposals

Question 1:

To what extent do you agree or disagree that the blood-lead levels within CLAW 2002 should be reduced?

Historic England supports the objective of improving worker health outcomes by reducing occupational lead exposure and supports the direction of travel towards lower blood lead levels. However, for the changes to deliver those outcomes effectively in real-world settings, the regulatory framework and supporting guidance need further refinement to reflect demonstrable practicability and a clearer UK background reference framework for blood lead levels, particularly for women. Without this, there is a risk that a blunt approach could displace work into less well-controlled settings, weaken compliance, and reduce the specialist capacity required to manage lead risks safely and appropriately in the historic environment.

Implementation should therefore be accompanied by sector-specific, task-based guidance, an evidence-led approach linked to demonstrated practicability, and workable compliance pathways for SMEs—so that lower exposure levels are achieved in practice while avoiding perverse outcomes that could reduce both worker protection and the ability to maintain historic buildings safely.

By way of context, the UK has one of the oldest housing stocks in Europe, and England has around 5.5 million traditional (pre-1919) buildings (see [Heritage in a Circular Economy \(Heritage Counts\)](#)); work on traditional buildings in England generates around £30 billion of economic output each year and supports over 190,000 jobs ([Skills Needs Analysis for the Repair, Maintenance and Retrofit of Traditional \(Pre-1919\) Buildings in England, 2024](#)).

Lowering the action and suspension levels for general employees category (all employees other than young people and WRC)

Question 2:

To what extent do you agree or disagree with lowering the general employee category blood-lead levels from October 2027?

(action level to 20µg/dL and the suspension level to 30µg/dL)

Disagree with the proposal as drafted, while supporting the objective of reducing blood lead levels. Historic England supports the health-protection rationale for lowering blood lead levels; however, there is not yet sufficient evidence that the proposed thresholds and timetable are feasible for site-based heritage work without further safeguards, evidence and sector-specific guidance. Without a practicable route to compliance in real working conditions, the proposals risk falling short of the intended worker health benefits and may instead create displacement, non-compliance or loss of controlled capacity. The process therefore needs to be proportionate and managed carefully to safeguard worker protection while sustaining the competent, supervised delivery capacity through which lead risks are managed in practice.

Question 2a:

If you answered Strongly disagree / Disagree', please briefly explain the reason(s) for your response. In particular, please indicate:

- **Whether it is the new action or the suspension level you disagree with, the time frame for the implementation of these levels (from October 2027)? Or both?**
- **What blood lead levels do you think would be appropriate? And within what time frame?**

Historic England disagrees with both the proposed action and suspension levels, as framed for site-based heritage work, and with the proposed implementation timetable, because the feasibility and evidence base have not yet been sufficiently demonstrated.

HSE's consultation spans sectors with very different exposure profiles and control environments (for example lead roofing, leaded glazing, paint removal, lead battery manufacture/recycling and the scrap industry). It should not be assumed that all sectors face comparable risks or have the same practicable control packages and surveillance arrangements. In the heritage sector, exposures can occur in variable, task-dependent conditions, frequently on live sites where welfare and decontamination arrangements may be constrained. Guidance and evidence expectations should therefore be explicitly sector-specific and task-based rather than implying a uniform compliance model across fundamentally different industries. HSE also acknowledges limited UK data on background blood-lead levels. In addition, toxicokinetics mean that blood lead can reflect both recent exposure and mobilisation from historic body burden ([Toxicokinetics of bone lead - PMC](#)), which affects how quickly individuals can realistically reach lower thresholds even after

controls are improved ([Lead: toxicological overview - GOV.UK](#)). The EU framework explicitly recognises this and allows continued work for some historically exposed workers if a declining trend is established. UK guidance should adopt similar “improved controls + declining trend” principles to avoid counterproductive suspension impacts where exposure has reduced and controls have strengthened.

The wider built environment context also supports the need for a robust UK background reference framework. [The English Housing Survey 2014–15](#) reports around 23.4 million homes in England and notes that 24% of the housing stock was built after 1980, meaning most homes pre-date 1980. Lead paint was banned from general sale in 1992 under [the Environmental Protection \(Controls on Injurious Substances\) Regulations 1992](#), meaning a substantial proportion of the building stock may still contain legacy lead sources relevant to background exposure and to the practicality of achieving low blood-lead thresholds. In addition, estimates suggest around 9 million households may still have lead water pipes (source: [Key facts | LEAPP Alliance](#)).

It should also be noted that lead is still prevalent in roofing and rainwater goods in the UK, whereas in many EU contexts copper, zinc and stainless steel are predominantly used for this purpose. According to the Lead Contractors Association, about 60,000 tonnes of roofing lead are used in the UK each year, underlining the continued significance of leadwork in the repair and maintenance of the built stock and the reliance of many traditionally constructed buildings on lead roofing, flashings and other lead components. By way of illustration of the scale and concentration of heritage assets reliant on leadwork, the Church of England has stewardship of approximately 16,000 parish churches and 42 cathedrals, many incorporating lead roofs, flashings, rainwater goods and stained glass.

In light of the above, a collaborative approach is strongly recommended, based on formal engagement of the heritage leadwork sector with HSE, to agree what levels are achievable and by when, and to develop practical safeguards and task-based guidance for site and workshop settings. In some workshop environments, for example specialist glazing workshops, stringent protocols may already be in place and further controls may be impracticable to introduce. For site works, better targeting of exposure reduction during known high-risk activities, such as disturbance of lead carbonate during stripping/removal or during work to lead roofs, may offer a realistic route to improvement, but evidence needs to be built on what blood-lead levels can be achieved in practice under these conditions.

Appropriate levels/timeframe: Historic England does not propose alternative numeric thresholds at this stage because the necessary UK background data and sector feasibility evidence are not yet sufficiently established. We recommend HSE defer any fixed commitment to implementation until it has: (i) established a clearer UK background reference framework for blood lead levels; (ii) tested feasibility in real-world heritage/site settings (including high-risk tasks); (iii) issued sector-specific, task-based guidance and simple decision tools enabling SMEs to comply; and (iv)

addressed surveillance/testing capacity constraints. A transition linked to demonstrated practicability (rather than fixed dates alone) would be more proportionate for this sector.

Unintended consequences: If compliance becomes unmanageable, stakeholders highlight risks of work being displaced to less regulated arrangements and increased costs that SMEs may not be able to absorb. Reduced availability of appointed doctors in some areas could further constrain compliance. The combined effect risks undermining worker protection and heritage outcomes by shifting activity away from supervised, well-controlled arrangements.

Question 3:

***To what extent do you agree or disagree with lowering the general employee category blood-lead levels further from October 2029?
(action level to 10 µg/dL and the suspension level to 15 µg/dL)***

Disagree with the proposal as drafted, while supporting the objective of reducing blood lead levels. Historic England supports the health-protection rationale for lowering blood lead levels; however, there is not yet sufficient evidence that the proposed thresholds and timetable are feasible for site-based heritage work without further safeguards, evidence and sector-specific guidance. This concern is heightened in relation to the second-stage reductions, because the proposed 2029 levels are substantially lower and would be more likely to trigger suspension or exclusion effects if applied without a demonstrably workable compliance pathway. The process therefore needs to be proportionate and managed carefully to safeguard worker health outcomes while sustaining the competent, supervised delivery capacity through which lead risks are managed in practice.

Question 3a:

If you answered 'Don't know / unsure', please go to the next question.

If you answered 'Strongly disagree / Disagree', please briefly explain the reason(s) for your response. In particular, please indicate:

- Whether it is the new action or the suspension level you disagree with, the time frame for the implementation of these levels (from October 2029)? Or both?***
- What blood lead levels do you think would be appropriate? And within what time frame?***

Both — Historic England disagrees with the proposed action and suspension levels and the implementation timetable. The same evidence-base and feasibility concerns set out under Question 2a apply here and are amplified by the further reduction. In addition, sector bodies including ICON and the Lead Contractors Association have indicated that the second-stage levels may be unattainable in practice for many site and workshop contexts, even with strict adherence to controls.

Appropriate levels/timeframe: Historic England does not propose alternative numeric thresholds at this stage. Instead, we recommend that HSE defer any fixed commitment to the second-stage reduction until it has (i) established a clearer UK background reference framework for blood lead levels, (ii) tested feasibility in real-world heritage/site settings (including high-risk activities), (iii) issued sector-specific, task-based guidance and simple decision tools enabling SMEs to comply, and (iv) addressed surveillance/testing capacity constraints. A transition linked to demonstrated practicability (rather than fixed dates alone) would be more proportionate for this sector.

Aligning the 'Young Persons' category with the 'general employees' category action and suspension levels

Question 4:

To what extent do you agree or disagree with aligning the 'young persons' action and suspension levels to those of the general employee category within CLAW 2002?

[Please note: CLAW Schedule 1 protections will remain, with 'young people' prohibited from lead smelting and refining processes and lead-acid battery manufacturing processes].

Historic England disagrees with the proposal as drafted, while supporting the objective of reducing blood lead exposure for young persons. We recognise that the additional CLAW Schedule 1 protections will remain, including prohibitions on specified high exposure industrial activities. However, aligning the 'young persons' action and suspension levels to those of the general employee category should not proceed as currently drafted unless HSE can demonstrate that the revised levels are achievable and enforceable in real-world heritage/site conditions and set out clear, practical safeguards for employers.

Question 4a:

If you answered 'Don't know / unsure', please go to the next question.

If you answered 'Strongly disagree / Disagree', please briefly explain the reason(s) for your response.

Historic England disagrees because it is not currently evidenced that the aligned action and suspension levels can be achieved consistently in site-based heritage work without further safeguards, evidence and sector-specific guidance. Young persons are recognised as being at particular risk from lead exposure; in heritage contexts, exposure can be intermittent and task-specific, with peaks during certain activities, and site constraints can limit welfare/decontamination arrangements.

The same evidence-base and feasibility concerns set out under Question 2a apply equally here, including limited UK background reference information and the difficulty of demonstrating feasibility and proportionality of fixed thresholds and dates for site-based work.

In addition, employers have specific duties in relation to young people's inexperience, lack of awareness of risks, and the extent of health and safety training provided. Without clear, task-based guidance and decision tools tailored to heritage trades, there is a risk that alignment "on paper" either fails to reduce exposure in practice or discourages employers from offering training routes. HSE should proceed only once it has co-produced sector-specific, task-based guidance (including supervision, competency and minimum site welfare/hygiene expectations) and demonstrated practicability in real-world heritage/site conditions.

Lowering the blood lead action / suspension levels in 'Women of Reproductive Capacity' (WRC) category

Question 5:

To what extent do you agree or disagree with lowering the blood-lead action and suspension levels for women of reproductive capacity within CLAW 2002 from October 2027?

(action level to 5 µg/dL and the suspension level to 7.5 µg/dL)

Disagree (with the proposal as drafted), while supporting the objective of reducing blood lead levels. Historic England recognises the health-protection rationale for enhanced protection of women of reproductive capacity. However, any change must be implemented through a clear, lawful and practicable pathway that improves health outcomes without unintentionally excluding women from heritage leadwork roles or destabilising specialist conservation capacity.

Question 5a:

If you answered 'Don't know / unsure', please go to the next question.

If you answered 'Strongly disagree / Disagree', please briefly explain the reason(s) for your response. In particular, please indicate:

- Whether it is the new action or the suspension level you disagree with (5 µg/dL [action level] / 7.5 µg/dL [suspension level])? Or the time frame for the implementation of these levels (from October 2027)? Or both?***
- What blood lead levels do you think would be appropriate? And within what time frame?***

Historic England recognises the strong scientific basis for enhanced protection of women of reproductive capacity (WRC); however, implementation must not result in adverse treatment of women in the labour market. HSE notes that earlier, lower thresholds for WRC raised concerns during informal engagement on operational and practicality grounds, including background lead levels in the UK, the ability to measure reliably at very low levels in the working environment, and a perception that the approach could prevent WRC from working with lead (ref: consultation para 5.16).

In heritage trades—particularly leaded/stained glass—a substantial proportion of the workforce is female. Available partial estimates indicate around 500 ICON-accredited

lead glaziers, approximately 250 of whom are women; this is indicative and does not include non-accredited practitioners, trainees, or others working outside ICON accreditation. Evidence also indicates some new entrants may already present with blood lead levels above proposed thresholds prior to occupational exposure, reinforcing the need for a UK reference framework and practicable compliance pathway.

The EU approach recognises the use of a biological guidance value/sentinel marker to trigger surveillance and targeted risk management, and stresses that protections should not translate into unfavourable treatment in the labour market. UK guidance should therefore set out a clear, practical compliance pathway centred on confidential medical review, task-based controls, exposure minimisation and proportionate task adjustments where needed—rather than repeated suspension or de facto exclusion.

Stakeholders report that uncertainty about lawful and workable implementation is already affecting recruitment decisions in parts of the sector. If the new blood lead levels for WRC are implemented without workable guidance and a practicable pathway for heritage settings, there is a risk that some leaded glass workshops may not be able to operate viably, given workforce composition, resulting in loss of specialist craft skills and reduced capacity to repair and maintain historic windows safely and appropriately.

Appropriate levels/timeframe: Historic England does not propose alternative numeric thresholds at this stage. We recommend that HSE defer any fixed commitment to the proposed WRC reduction until it has (i) established a clearer UK background reference framework for blood lead levels, (ii) tested feasibility in real-world heritage/site settings (including high-risk activities), (iii) issued sector-specific, task-based guidance and simple decision tools enabling SMEs to comply, and (iv) addressed surveillance/testing capacity constraints. A transition linked to demonstrated practicability (rather than fixed dates alone) would be more proportionate for this sector.

Question 6:

Do any of your employees qualify for and use the long-service employee concession?

Not applicable

Question 7:

Do you agree or disagree that the long-service employee concession level should be ended by 1st October 2034?

Disagree

Question 7a:

- If you answered 'Strongly agree / Agree', please briefly explain the reason(s) for your response. In particular, please indicate when should the concession be removed as proposed in para 5.19 e.g. *'from 1st October 2034 the long-service employee non-regulatory concession should no longer be used, and workers would then have to be suspended if they hit the new threshold levels'*)?
- If you Disagree/Strongly please briefly explain reason for this response?

Long-service workers are often among the most experienced employees in a company, and are therefore essential to passing on craft skills to the next generation. Toxicokinetic evidence shows lead is stored predominantly in bone with long half-life ([Toxicokinetics of bone lead - PMC](#)), and blood lead can remain elevated for prolonged periods due to historic body burden even after exposure reduction; interpretation therefore needs to account for this.

Ending the concession without an "improved controls + declining trend" pathway could result in prolonged suspension of highly experienced workers, reducing supervision capacity and weakening skills transfer in a sector where specialist leadwork capability is already fragile.

The EU framework explicitly recognises this and allows continued work where a declining trend towards the relevant limit is established.

Article 11 of the [Directive \(EU\) 2024/869](#) of the European Parliament and of the Council of 13 March 2024 amending Directive 2004/37/EC of the European Parliament and of the Council and Council Directive 98/24/EC states: *"Lead accumulates in the bones and is released slowly into the circulatory system. The blood lead level could thus remain high for a long time after exposure to lead and its inorganic compounds has been reduced. Regular medical surveillance should therefore be carried out for workers whose blood lead level exceeds the biological limit value in force due to exposure which occurred before 9 April 2026. If a declining trend towards the biological limit value in force is established, it should be possible for those workers to be allowed to continue performing tasks that involve exposure to lead and its inorganic compounds"*.

Historic England recommends HSE considers an equivalent approach in UK guidance to avoid disproportionate and counter-productive exclusion of experienced workers while still driving improved controls.

Question 8:

Are there any unintended consequences which you think may result from reducing the blood-lead levels in CLAW 2002?

Yes

Question 8a:

If 'yes', please briefly explain what these unintended consequences might be.

The proposed changes could have unintended consequences if implemented without sufficient evidence, sector-specific guidance and workable compliance pathways. These are not arguments against the objective of reducing lead exposure; rather, they are risks that could affect whether the proposals achieve improved worker health outcomes in practice.

1. Risk transfer and weakened control. If thresholds are introduced without a practicable route to compliance in heritage settings, work may be displaced into less visible or less well-controlled arrangements, undermining the health-protection purpose.
2. Feasibility in heritage/site conditions. Variable, task-dependent environments and site constraints (welfare, hygiene, decontamination) can make consistent application of control and protection measures more difficult, with exposure peaks during particular tasks.
3. Heritage fabric and appropriate repair. Lead remains integral to the character, function and long term performance of many historic building elements and associated heritage assets, including roofs, flashings and rainwater goods; stained glass and leaded lights; historic pipework and internal fittings; existing lead based paints and coatings on historic metalwork, including bellframes, clocks and associated mechanisms; and specialist heritage crafts such as metal sculpture and organ making, for example lead in pipe manufacture. Abrupt constraints on skilled capacity could lead to deferred maintenance, increased risk of deterioration including associated risks for building users, and pressure for inappropriate material substitution, with impacts on appearance, performance and significance.
4. Visitor economy and public access. Reduced capacity to maintain historic buildings can affect safe access and visitation, with knock-on effects for local economic activity. By way of illustration, Oxford Economics estimated that in 2015 heritage tourism supported £5.3 billion in tax receipts to the Exchequer, equivalent to 0.8% of all central government tax collected that year ([Oxford Economics, 2016](#)).
5. Skills loss and weakened training pipeline. Additional compliance burdens and suspensions could exacerbate existing skills shortages, reducing training capacity and long-term resilience. For context, [Historic England's 2024 Skills Needs Analysis](#) indicates recruitment has become more difficult for specialist contractors.
6. Workforce impacts and recruitment risks. The proposals could affect recruitment, retention and task allocation across specialist heritage leadwork, particularly where employers are uncertain how to comply lawfully and consistently with lower thresholds, medical surveillance requirements and work restrictions. These risks may be especially acute in leaded/stained glass, where a large proportion of the workforce is female and the proposed WRC thresholds could have a disproportionate impact without a clear, lawful and practicable compliance pathway. Without such

guidance, there is a risk of skills loss, business contraction or closure, and reduced capacity to repair and maintain historic buildings and windows safely and appropriately.

7. Surveillance capacity and SME viability. Reduced availability of appointed doctors, combined with increased testing, travel time, downtime and associated costs, may be disproportionate for micro and small specialist firms, increasing the risk of financial distress or withdrawal from regulated work.
8. Enforcement asymmetry and “shadow” market effect. Stakeholders warned of enforcement asymmetry: visible, regulated projects and firms risk becoming the easiest targets for monitoring and suspension requirements, while less regulated or self-employed arrangements may be harder to reach consistently. This could incentivise work to shift towards less surveilled arrangements, undermining worker protection rather than improving it.
9. International comparison. Care is needed when comparing with contexts where alternative metals predominate; the UK’s reliance on leadwork traditions requires a proportionate approach grounded in UK practice and evidence.

In light of the above, requirements developed primarily around other exposure contexts may not be directly transferable to heritage work without further refinement. Greater engagement with the traditional building conservation sector would be welcomed to co-develop sustainable, workable guidance and controls that are practicable in real-world heritage/site conditions.

Historic England would be happy to contribute technical input and help coordinate engagement across the heritage sector to support a solution that strengthens worker protection without creating perverse outcomes for the conservation of the historic environment and the associated intangible cultural heritage of traditional leadwork skills and practices.

Question 9:

Are there any workers with particular characteristics (age, disability, gender reassignment, race, religion or belief, sex, sexual orientation, etc.) you believe will be disproportionately impacted by the proposed changes in CLAW 2002?

Yes.

Question 9a:

If ‘yes’, please briefly explain who will be disproportionately impacted by the CLAW 2002 changes? And why?

The proposed changes to the CLAW 2002 regulations may disproportionately affect the following groups. Historic England’s comments are focused on practical implementation risks and workforce impacts relevant to heritage delivery.

- Age / long-serving workers: Higher cumulative body burden may increase the likelihood of exceeding revised thresholds, leading to prolonged restriction/suspension and loss of experienced supervision and skills transfer.
- Women of reproductive capacity: Lower thresholds may trigger more frequent action/suspension responses. Without clear, workable guidance, the proposed approach could become impracticable in some specialist heritage settings, particularly leaded/stained glass, where a substantial proportion of the workforce is female. This could affect recruitment, retention and task allocation, and risk unintended exclusion from specialist heritage trades unless HSE provides a clear, lawful and practicable compliance pathway.
- Gender reassignment: There is a risk of inconsistent or inappropriate implementation if employers are unclear how categories should be applied in practice. HSE guidance should therefore be clear that compliance must be managed through confidential occupational health processes, without unnecessary disclosure expectations and with consistent, non-discriminatory practice.

Question 10:

Provide any further final comments on the CLAW 2002 proposals below – many thanks.

Historic England is the Government's adviser on the historic environment in England and an arm's-length body and executive non-departmental public body sponsored by DCMS. Our statutory duties include securing the preservation of ancient monuments and historic buildings in England; promoting the preservation and enhancement of the character and appearance of conservation areas; and promoting the public's enjoyment and knowledge of historic places and their preservation. We are responding because the proposed changes may affect the conservation, repair and maintenance of historic buildings and sites, and the specialist supply chains and skills needed to deliver that work safely and to the required standard.

Scale and economic importance: England's heritage sector is estimated to have contributed £44.9bn in GVA to the UK economy in 2022 and supported over 523,000 jobs. For every £1 of direct GVA generated by the sector, an additional £1.93 is added to the wider economy. The construction industry is the largest constituent heritage sub-sector, generating £7.42bn GVA in 2022. ([The Economic Value of the Heritage Sector | Heritage Counts | Historic England](#))

In light of the evidence gaps and feasibility concerns raised across the sector (including constraints in site conditions and surveillance capacity), Historic England recommends that HSE:

- establish a cross-sector working group with heritage/leadworking bodies, conservation employers and relevant experts to agree a health-protective, proportionate and workable approach for heritage/site and workshop conditions
- collaborate with relevant public bodies to establish robust national evidence on background lead levels in the population, to inform proportionate and achievable exposure thresholds across the workforce and contribute to wider public health understanding;
- explicitly recognise that heritage leadwork often involves a distinctive exposure context (variable, task-dependent, frequently on live sites and in constrained environments) and should therefore be supported by sector-specific, task-based guidance and controls that reflect real-world practicability;
- adopt transitional arrangements linked to demonstrated practicability (not fixed dates alone), including an “improved controls + declining trend” approach for long-service workers affected by historic body burden
- reconsider the proposed approach for women of reproductive capacity to avoid unintended exclusion, and set out a clear, lawful and non-discriminatory pathway for employers;
- undertake a targeted heritage-sector impact assessment addressing costs, workforce demographics and the long-term sustainability of specialist skills and SMEs;
- provide clear, practical guidance on how to achieve any new limits agreed (including task-based controls for site and workshop settings, and clear expectations for welfare/hygiene arrangements and surveillance capacity planning);
- consider what transitional and/or financial support mechanisms may be needed to enable SMEs and specialist conservation employers to implement any agreed changes without creating perverse outcomes (including work displacement and loss of critical skills).

These refinements are necessary to ensure the proposals achieve their intended worker health outcomes in practice, particularly in real-world heritage and site-based conditions.

Historic England would welcome continued engagement with HSE and other stakeholders and would be pleased to contribute to the development of a balanced, workable approach that protects lead workers while sustaining essential heritage repair and maintenance capacity and the associated specialist skills base.