

Reconsideration of the Dust-Lead Hazard Standards and Dust-Lead Post-Abatement Clearance Levels

8/23/23

Proposed Rule Excerpts – Highlights & Important Takeaways

Quotes indicate an excerpt from the proposed rule.

Abatement Definition

“This rule, if finalized, would change the LBP activities regulations' definition of abatement to be any measure or set of measures designed to eliminate LBP hazards, in the case of dust-lead hazards, to a level below the new proposed DLCL, and would require an additional statement in the final abatement reports that states that LBP hazards (particularly dust-lead hazards) remain after an abatement if clearance testing has found that they do remain.”

Abatements are currently defined as any measures or set of measures designed to permanently eliminate lead-based paint hazards and include activities such as the removal of paint and dust, the permanent enclosure or encapsulation of lead-based paint, the replacement of painted surfaces or fixtures, and all preparation, cleanup, disposal, and post-abatement dust wipe testing activities associated with such measures. **The proposed change to the definition of abatement would shift the recommendation for an abatement to when the dust-lead loadings are at or above the DLCL.** Because the proposed DLCL are lower than the 2019 DLHS, more recommendations for abatement are expected. However, not every circumstance where dust-lead hazards are identified will result in an EPA recommendation for abatement, i.e., when dust-lead loadings are at or above the DLHS, but below the DLCL. Similarly, EPA recommends interim controls only in circumstances when dust-lead loadings are at or above the DLCL, rather than the DLHS, for the reasons explained above.

Benefits

“This rule would result in reduced exposure to lead, yielding benefits to residents of pre-1978 housing from avoided adverse health effects. For the subset of adverse health effects that were quantified (i.e., the effect of avoided IQ decreases on lifetime earnings as an indicator of improved cognitive function), **the estimated monetized and annualized benefits are \$1.069 billion to \$4.684 billion per year** using a 3% discount rate, and \$231 million to \$1.013 billion per year using a 7% discount rate.

EPA estimated BLL and related changes in IQ (a measure of cognitive function) in young children. The results show that as dust-lead levels in housing decrease below the current standard (i.e., 10 µg/ft² and 100 µg/ft² for floors and window sills), so do children's BLL and IQ decrement from lead exposure.

Additionally, there are unquantified benefits. These additional benefits include avoided adverse health effects in children, including decreased attention-related behavioral problems, decreased cognitive performance, reduced post-natal growth, delayed puberty, and decreased kidney function. These additional unquantified benefits also include avoided adverse health effects in adults, including cardiovascular mortality and impacts on reproductive function and outcomes.”

Costs

This rule is estimated to result in quantified costs of \$536 million to \$784 million per year. These costs are expected to accrue to landlords, owners and operators of child-occupied facilities, residential remodelers, and abatement firms.

Labs

If finalized as proposed, **EPA believes that ICP–AES would likely become the instrument standard for dust wipe testing** for lead at the NLLAP laboratories, as other technologies were not reported to consistently meet the quantitation limit described above.

Several concerns about switching to ICP instruments were raised by laboratories, such as, a reduction in the throughput rate, need for additional equipment and staff due to the complexity of the machines (compared to FAAS), higher prices, delayed turnaround, and concerns over maintaining the current sample volume and ultimately whether to continue keeping dust wipe testing for lead in their portfolio/revisiting their business model. Based on the outreach conducted, laboratories indicated that the throughput rate on ICP–AES machines is roughly seven to 12 times slower than FAAS throughput. One major laboratory EPA spoke to estimated that they would have to purchase three to six new instruments, hire several highly qualified technicians, and run the laboratory on shifts over 24 hours to meet current demand for dust wipe tests conducted solely by ICP. This shift in instrumentation is estimated to increase both cost per sample as well as turnaround time. Laboratories mentioned that for clearance a substantial portion of their dust wipe testing clients request same-day or next-day turnaround on samples so that residents can quickly reoccupy their homes. Several laboratories doubted the technical feasibility of providing same-day or next-day turnarounds at sufficient volume should they switch to ICP technology thereby, potentially delaying homeowners from quickly reoccupying their homes and renters from quickly beginning occupancy or from quickly reoccupying their rental housing. Dust wipe testing by ICP–AES is also estimated to be about 125% more expensive per sample than testing by FAAS, and laboratories expressed concern that less overall dust wipe testing will occur because state and local municipalities often have a fixed budget for their housing and health programs. See the EA for more specific information on the breakdown of the cost estimates of dust wipe testing. EPA also seeks information on the potential geographic impacts of the proposal on laboratory testing for lead dust wipes.

EPA also received feedback that the alternative DLCL option (5/40/100 µg/ft²) could better mitigate any negative impacts on other programs that require specific testing using ICP–AES or FAAS equipment. Laboratories currently use their ICP–AES machines for a variety of purposes. Most notably,

this equipment is regularly used for the characterization of metals in hazardous waste and measuring lead in drinking water. Under the primary DLCL option 3/20/25 $\mu\text{g}/\text{ft}^2$, laboratories would face a significant increase in demand for use of their ICP machines, which could result in substantial downstream effects on the availability and price of testing for other lead and non-lead programs. Additionally, some laboratories mentioned they might eliminate use of their FAAS machines to streamline laboratory functionality. This may have downstream effects on testing for lead in soil, paint chips, and air; laboratories currently test these matrices by FAAS with some frequency. If laboratories decide maintaining FAAS is no longer viable for their primary line of business (dust wipes), all lead matrices could be added to ICP queue, which would worsen availability issues and increase prices.

Timeline

Public Comment ends Oct 2, 2023

Revised Rule will be published Oct 2, 2024

Effective (enforcement) begins Oct 2, 2025