October 2, 2023

Via: https://www.regulations.gov/

TO WHOM IT MAY CONCERN:

Thank you for the opportunity to provide comments on EPA's Proposed Rule titled "Reconsideration of the Dust-Lead Hazard Standards and Dust-Lead Post-Abatement Clearance Levels" at 40 CFR Part 745, [EPA–HQ–OPPT–2023–0231; FRL–8524–01–OCSPP] RIN 2070–AK91.

The Lead and Environmental Hazards Association (LEHA) has serious reservations about the unintended consequences of the Environmental Protection Agency's (EPA) proposed rule. A fundamental component of our work is effectively planning and communicating risk-response action strategies to families, property managers, healthcare professionals, regulators, and others. As professionals, we are concerned that the proposal is unworkable and will drastically impede the nation's ability to conduct lead paint abatement, interim controls, and other remediation, leaving thousands of children at greater risk needlessly.

LEHA has supported EPA for many years in its various efforts to expand the supply of abated homes and offers these comments in the same spirit.

Who We Are

The Lead and Environmental Hazards Association is writing on behalf of hundreds of professionals performing lead paint inspections, risk assessments, remediation, training, laboratory services, local government lead poisoning prevention programs, scientific researchers, and others.

A fundamental component of our work is effectively planning and communicating risk-response action strategies to families, property managers, healthcare professionals, regulators and others. We are on the "front lines" of the nation's battle against lead poisoning by assessing and remediating homes, apartments, childcare centers, schools and other properties for lead-dust hazards. Because childhood lead poisoning disproportionately affects children of color, it is an environmental justice issue. We are a national, non-profit organization committed to advancing our nation's efforts to eliminate lead paint poisoning and other public health and environmental hazards faced by both children and adults, especially in homes, schools and other buildings where hazards are most severe. We improve opportunities for advancing lead inspection, risk assessment, abatement, and many other initiatives by conducting educational programs, research, policy evaluation, outreach to decisionmakers, and business activities. The members of LEHA and others working to protect children collect and analyze thousands of lead dust samples each year, making us uniquely qualified to address the consequences of the proposed rule.

LEHA's Key Recommendations

1. **EPA should abandon the terms "dust lead clearance levels" and "dust lead hazard standards," and should replace them with "dust lead action level and clearance" and "lead-contaminated dust goal," respectively.** This new terminology will enable the public to understand when action is needed and what the goal is. This is consistent with the authorizing statute (Title X, section 403 of the 1992 Housing and Community Development Act), which states that the EPA Administrator "shall promulgate regulations which shall identify…lead-based paint hazards, lead-contaminated dust and lead-contaminated soil."

2. **EPA should abandon the use of the phrase "there is no safe level of lead exposure,"** which the agency used to justify its dust lead hazard standard of a non-numerical standard greater than zero, for three reasons: First, there is in fact no scientific study that has ever proven "there is no safe level of lead exposure." Second, Title X does not authorize EPA to set a "safe" level of exposure; instead, the statute authorizes the agency to identify "dangerous" levels of lead ("safe" and "dangerous" clearly mean two different things; "safe" does not mean the absence of all "danger."). Third, there are thousands of chemicals and agents (like lead) that have no known "threshold," including almost all carcinogens. Yet the absence of thresholds has never meant that EPA should abandon numerical exposure levels, as it has done in this proposed rule. The idea that there is no threshold of lead exposure is nothing new and was first articulated by CDC in 1985.

3. **EPA has failed to present any credible evidence that its proposed clearance levels or its primary alternative are in fact feasible**. Instead, the agency chose to reference an outdated HUD report and an unnamed source in New York City's Department of Health and Mental Hygiene. Yet the outdated HUD report showed that its grantees could not in fact achieve substantive compliance with the EPA proposed clearance levels and the primary alternative. The HUD report showed that 28% could not achieve clearance on floors at less than or equal to 5 $\mu g/ft^2$. Furthermore, more recent data from the New York City Housing Authority, showed that nearly 50% of floor dust lead clearance samples initially failed using a level of 5 $\mu g/ft^2$. EPA failed to consider, access, or present these available data. The failure rate would be even higher at a floor clearance level of 3 $\mu g/ft^2$ although this remains unknown because there is no evidence of ability to meet a clearance level of 3 $\mu g/ft^2$. Even if it were demonstrated that such clearance levels could be met, it would impose significant opportunity costs, resulting in fewer remediated homes. This disconnect is an environmental justice issue, because children of color and those from low-income families residing in older housing are especially in need of remediated homes.

4. **Evidence shows that reduced clearance lead dust levels are unlikely to have a long-term health benefit, due to the well-known "rebound effect," described below.** The nation's longest-term follow-up study of lead paint remediation, carried out over 12 years following remediation, shows that dust lead levels do not remain constant following clearance, contrary to the assumptions in EPA's economic analysis and technical support documents for this proposed rule. Instead, the scientific evidence demonstrates a "rebound" effect: Levels of lead dust were found to be greatly reduced at clearance compared to pre-abatement levels, but rapidly climb as residents move back into their homes (despite this rebound, dust lead levels are much lower

than pre-abatement levels). Figure 1 shows that the effect of reducing the dust lead clearance level on floors to 3 μg/ft^2 or 5 μg/ft^2 (shown as a blue circle and an oval, respectively) vanishes compared to the rebound when families move back into their abated home. The figure shows that levels increase immediately following clearance before finally subsiding to levels below EPA's proposed dust lead clearance levels of 3 μg/ft^2 or 5 μg/ft^2 four to six years later. This rebound effect has been seen for both abatement and interim control work, represented by the 3 lines in the figure (Year zero in the figure is when clearance occurred.) This "rebound" effect has also been demonstrated in numerous other studies of both abatement and interim controls. In short, EPA's proposal to reduce clearance levels will not result in reduced exposure, because the level at clearance is dwarfed by the levels immediately **following** clearance.

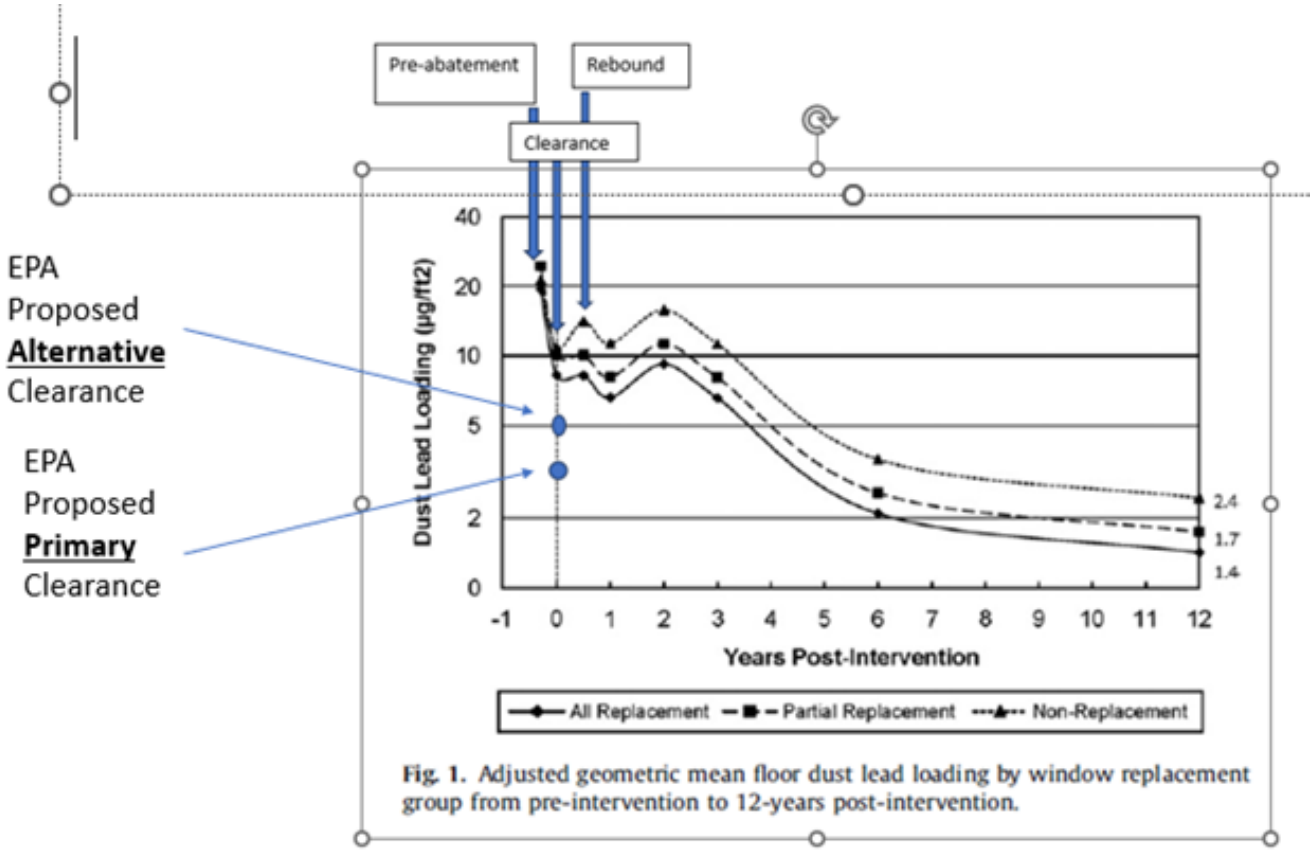

Fig. 1. Adjusted geometric mean floor dust lead loading by window replacement group from pre-intervention to 12-years post-intervention.

Adapted from: Dixon S, Jacobs DE, Wilson J, Akoto J, Clark CS. 2012. Window Replacement and Residential Lead Paint Hazard Control 12 Years Later. Environ Res 113: 14-20.

5. **EPA's Economic Analysis is flawed because it underestimates costs and overestimates benefits**. The costs are underestimated because this proposed rule will require more testing and more cleaning and longer temporary relocation of residents after failed clearances. The monetary benefits are overestimated because the expected IQ improvements and associated increased lifetime earnings cannot be realized because lower dust lead exposures over time will not occur from lower clearance levels, as shown in Figure 1. The EPA economic analysis already shows a net cost at a 7% discount rate. If proper cost estimates are included, the net costs will also rise, as shown later in this document. The proposed rule also ignores the decrease in demand for lead abatement due to public and professional assessment that the proposed clearance levels are not attainable. Professionals who can meet the existing clearance levels are expected to leave the field, principally because of two reasons, both of which increase costs. First, because the proposed rule decouples the hazard and clearance levels, those professionals will face increased liability. Decoupling means that it will now be likely that an abatement job complies with clearance levels yet leaves behind a so-called "hazard." Attorneys are expected to file frivolous lawsuits arguing that a "hazard" remains even though an abatement job complies with the clearance level, seeking a quick monetary settlement. EPA's economic analysis failed to include any costs associated with this increased liability and insurance. Second, demand for lead abatement is likely to decline, despite overwhelming and increased need due to the aging US housing stock and increased prevalence of deteriorated lead paint, especially for the children at greatest risk. The decline is due to both the EPA proposed rule and the largest rescission in HUD's lead hazard control program funding ever, described later in this document. Both the Senate and the House markups in appropriations bills in 2023 have hundreds of millions of dollars in rescissions in HUD's lead hazard control grant program, the nation's largest source of funding. Why propose a rule that increases costs at the same time when resources for abatement are shrinking, especially when benefits remain unproven?

6. **EPA's technical support document demonstrates that the agency relied almost entirely and erroneously on its mechanistic IEUBK model** to estimate the impact of dust lead exposures on blood lead, with empirical approaches receiving only passing mention. Yet the Integrated Exposure Uptake Biokinetic (IEUBK) model (which requires an input term for lead dust in concentration, not loading) relies on a conversion of dust lead loading ($\mu g/ft^2$) into dust lead concentration (ppm), based in part on a paper by Bevington et al. Yet that paper conflates vacuum sampling with wipe sampling; both methods have vastly different collection efficiencies. Simply because both wipe and vacuum methods are capable of expressing measurements in loading does not mean they are equivalent or interchangeable. Although EPA's statisticians may be able to regress any two variables and come up with some correlation, the simple inescapable fact remains that these two metrics are fundamentally different and incompatible. Dust lead loading ($\mu g/ft^2$) has been shown repeatedly to be better correlated with children's blood lead levels, compared to dust lead concentration (ppm). Finally, the IEUBK model has no input term at all for the contribution of paint lead to blood lead.

7. **The decision to abandon all consideration of feasibility in EPA's proposed dust lead hazard standard clearly violates both Title X and the Toxic Substances Control Act that Title X amended.** Section 402(a)(1) of Title X states, "Such regulations shall contain standards for performing lead-based paint activities, taking into account **reliability**, effectiveness, and safety."

Section 1003(3) states that one of the purposes of the Act is "to encourage effective action to prevent childhood lead poisoning by establishing **a workable framework** for lead-based paint hazard evaluation." The Toxic Substances Control Act states, "It is the intent of Congress that the [EPA] Administrator shall carry out this chapter in a **reasonable** and prudent manner, and that the Administrator shall consider the **environmental, economic, and social impact** of any action the Administrator takes or proposes" (emphases added).

Although EPA interpreted a recent Ninth Circuit Court opinion to mean that the Agency was not allowed to consider feasibility in setting a dust lead hazard standard, this is clearly at odds with the relevant statutes. Furthermore, because any "standard" is used to determine whether some real-world activity has actually complied with it, and because EPA made no determination about whether its proposed dust lead hazard standard is "reliable, effective, safe, workable or reasonable," as required by both Title X and TSCA, then by definition it cannot be a "standard." This is why LEHA proposes that the word "lead dust hazard standard" be eliminated and replaced by "lead-contaminated dust goal." This is consistent with EPA's water lead "maximum contaminant level **goal**." It is also consistent with long-standing federal, state and local policy that all exposures to lead be kept as low as possible. Finally, this will help to prevent frivolous lawsuits arguing that abatement jobs that meet clearance levels also leave behind a "lead dust hazard." A goal and an action level are concepts that the public can grasp readily, and avoids the dilemma, recently articulated in two articles: "Zero Lead Is an Impossible Ask for American Parents, by Lauren Silverman, Atlantic magazine, Aug 26, 2023" and "Considering Some Negative Implications of an Ever-Decreasing U.S. Centers for Disease Control and Prevention (CDC) Blood Lead Threshold and 'No Safe Level' Health Messaging," by Siddhartha Roy, Kim N. Dietrich, Hernan F. Gomez, and Marc A. Edwards, Environmental Science & Technology 2023 57 (35), 12935-12939, DOI: 10.1021/acs.est.3c04766.

8. **EPA should not require some kind of statement in the event dust lead levels are above the detection limit but below the reporting limit**, because there has been no intervention that has been shown to be effective at these levels.

9. **There has been no evidence to show that a larger wiped area still correlates with children's blood lead level**. The proposed dust lead clearance level will require a 3 µg per wipe reporting limit with a 2 ft^2 wipe sampling surface area to meet the requirement for floors. Yet there has been no study to determine if the dust lead is still correlated with children's blood lead level using a larger surface area. Collection efficiency will decrease the larger the surface area is, but no research has been conducted to quantify the magnitude of this decline in collection efficiency or whether a larger surface area still correlates with children's blood lead level.

10. **EPA failed to define minimum wipe areas for windowsills and window troughs, and more importantly what is to be done when the windowsills and troughs are not actually large enough to meet the minimum wipe area**. With the lower regulatory limits for windowsills being proposed, windowsill reporting limits will become the trigger for what reporting limits labs must achieve. If they are not large enough, a lower clearance level is simply not possible. With a 3 µg per wipe reporting limit, a 0.3 ft^2 wipe will be needed to meet the windowsill reporting limit requirement of 10 µg /ft^2. A similar issue exists for window troughs.

11. **EPA's hope of using ICP-OES laboratory instrumentation is not supported by any evidence**. Most labs using current (2022) ICP-OES have a method detection limit of 0.77 µg per wipe. That means the lowest that can be reported is 1.54 µg per wipe, which is not low enough to meet the windowsill requirements for either the proposed or alternate dust lead clearance level.

12. **EPA's assessment of lab costs is too low.** EPA's statement that dust wipe testing by ICP-OES is about 125% more per sample than testing by flame atomic absorption spectroscopy is not supported by evidence. At least one major lab reports that for ICP-OES, the cost is 200% more for a 5-day turn-around-time and 420% more for same- day turn-around time. The same-day analysis pricing is especially important for clearance testing as most clients request same day turnaround times to avoid higher temporary relocation costs for residents. These real-world estimates are far higher than what EPA used in its economic analysis.

13. **Laboratories do not have the equipment**. EPA ignored the fact that laboratories do not have enough instruments in place currently if ICP-OES becomes the instrument standard for lead dust wipe testing and will be unlikely to invest in them, even with some phase-in period. Many labs will be unable to meet the LQSR-3 requirements and will not be relevant in the marketplace, thus reducing competition and further increasing costs. EPA's economic analysis did not account for such increased cost and reduced competition.

14. **Because EPA's proposed and alternative clearance levels are both clearly not feasible, the current (and recently reduced) EPA clearance standards for floors, window sills and window troughs of 10 µg/ft², 100 µg/ft² and 400 µg/ft² respectively should be retained**, because they have been demonstrated to be feasible, protective, health-based, attainable, and measurable. The Ninth Circuit court did not state what the lead-contaminated dust action and clearance level should be, suggesting the Agency has latitude. But neither the Economic Analysis nor the Technical Support document considered the current standards as an option.

15. **EPA did not revise its RRP and disclosure rules adequately.** Although EPA is proposing related changed to its Renovation, Repair and Painting Rule and to the joint EPA/HUD disclosure rule, none of the proposed changes would require any dust lead testing. These rules cover far more children, homes, and jobs than the EPA lead abatement regulations, and since EPA has proposed to change the disclosure and RRP rules, there is an opportunity to expand dust testing.

16. **EPA chose to use 2004 HUD/NHANES dust lead data in its empirical model, but these data are more than two decades old** and may no longer reflect current conditions. EPA should not promulgate this proposed rule until the Agency funds new research to determine if the 2004 data relationships are still valid.

17. **There is no evidence available concerning the relative contribution of sill and floor dust-lead to total dust lead exposure.** EPA's assumption that windowsills account for only 4% of total lead exposure remains unsupported. Furthermore, in the EPA Technical Support document, Table 2-4 uses dust and blood results from national datasets, but the dust and blood results come from different (not the same) homes. There has not been new blood/dust data from the same homes from a nationally representative survey for nearly 20 years (1999-2004), so results are outdated.

EPA should fund updated research to support the relationship between these two variables using nationally representative blood and dust data from the same homes.

18. **EPA should fund the creation of more recent datasets to provide evidence supporting its proposal.** In its technical support document, EPA states, "Due to a lack of datasets with lower geometric mean BLL [blood lead levels] than the NHANES 2009-2016, performance of the model on populations with lower geometric mean BLLs **cannot be presently evaluated and we cannot determine whether the present model represents an overestimate or underestimate** at the lowest values examined" (emphasis added). But because blood lead levels likely have continued to decline since 2016, and because most children are now at these lower blood lead levels, the models used by the Agency remain largely theoretical and not appropriate for rulemaking.

19. **The lack of recommendations on what parents should do will put children at greater, not lower risk.** In its technical support document, EPA states that the agency is "proposing to revise the definition of abatement from any measure or set of measures designed to eliminate dust-lead hazards to any measure or set of measures designed to eliminate dust-lead hazards 'to below the dust-lead clearance levels.'" This definition seems to ignore deteriorated lead paint, which is in fact what drives the vast majority of abatement projects. In short, deteriorated lead paint should be retained in the new definition. Indeed, EPA later states "Under this revised definition**, EPA will not recommend an abatement when lead dust loadings are below the clearance levels since these dust-lead levels would already attain clearance before any hazard reduction and/or cleaning begins"** (emphasis added). Thus, dust-lead levels falling between the revised hazard standards and the revised clearance levels will not trigger a lead hazard reduction event in unassisted housing. Not only does this appear to ignore deteriorated lead paint, it also apparently ignores the likely increase in dust lead levels following treatment of deteriorated lead paint, an unintended consequence of the proposed rule. In its technical support document, the agency states "EPA is proposing to change the regulatory definition of abatement so that the recommendation for action is when dust-lead loadings are at or above the dust lead clearance level (rather than at or above the dust lead hazard standard as it has been historically)." This appears to mean that there is no recommendation at all when a "hazard" exists. The proposed rule also fails to define when a "hazard" is **NOT** present, likely because virtually all houses will now have a so-called "hazard." This will needlessly confuse parents and property owners and professional lead risk assessors alike.

20. **EPA's recommendation for additional cleaning and the associated costs was not included in its Economic Analysis**. This means that there are apparently no costs for units that have dust lead above the "hazard standard" but below the clearance level, even though EPA will "recommend" cleaning in this case. Yet this additional recommended cleaning was not assigned a cost, and it is not known if such cleaning can ever achieve compliance with the proposed hazard standard. This suggests that costs were underestimated and that the proposed dust lead hazard standard is not really a standard at all. One of our members estimated that the cost for extra labor alone is at least $2,500 for a typical small two-bedroom dwelling unit, and likely much more due to increased testing and repeated cleaning costs.

21. **Clearance rate failures at the new proposed clearance standards remain unknown**. In its Economic Analysis, EPA states "The American Healthy Housing Survey II [AHHS II] is also used to model whether or not the clearance test result on the affected floors would result in an incremental re-clearance event." But AHHS II was not an abatement study, it was only a cross-sectional survey of existing conditions. In short, that survey cannot be used to estimate the likelihood of repeated clearances, because it is not an abatement study. There are real world clearance data that would be better than attempting to use data and models that are not related to abatement. Indeed, EPA states: "Neither the AHHS II nor the HUD clearance survey provide a clear way to predict how loading levels in a given unit would change under the regulatory options. This is because units will likely not reduce dust-lead loadings to exactly meet the hazard standard or clearance levels but will achieve some dust-lead loading below those required under the regulatory options. These post-rule loadings cannot be estimated directly from the AHHS II and LHCCS, and therefore this analysis uses the simulation approach." We do not believe a major rule should rely only on simulations when real world data are available.

22. **Net cost.** Table 7.1 of EPA's economic analysis shows a net annual **cost** of the proposed rule of $108-302 million at the 7% discount rate. There is a net annual benefit of the primary option (5 $\mu g/ft^2$ on floors) at the 7% discount rate. All have net benefits at the 3% discount rate. Also see Table 7.4. It is worth noting that virtually all previous cost benefit analyses for lead hazard control have demonstrated large net benefits, unlike this current EPA proposed rule.

23. **EPA calculates that HUD's lead hazard control grant costs will increase 7% under its proposed rule, (we expect costs to be higher as described above) but it appears that Congress is prepared to reduce HUD's funding**. This can only mean one thing: Under EPA's proposed rule, **the number of houses being abated will decrease**, placing more children at greater risk, especially those whose homes need remediation the most, an environmental justice concern. The combination of a proposed rule that needlessly increases costs while funding is decreasing does not help to advance our nation's goal of taking action before children are exposed (primary prevention). LEHA has supported EPA for many years in its various efforts to expand the supply of abated homes. In short, LEHA believes that our primary task in this time period is to take lead remediation to scale, not to change existing clearance levels that have been shown to be protective, feasible, measurable and sustainable.

24. **Unfunded Mandate.** The total estimated annual cost of the proposed rule is $533 million to $781 million, which exceeds the inflation-adjusted unfunded mandate threshold of $170 million. LEHA does not believe that a rule exceeding the unfunded mandate is appropriate nor is it what the nation's children need.

25. **Updated Training.** EPA needs to update its model training curricula, including the third-party examinations, some of which date back to the 1990's. To assist with this effort, LEHA works with states to provide updated third-party peer-reviewed tests that reflect current best practices and regulations. LEHA can assist EPA in this effort.

26. **Phase-in Period.** If EPA chooses in its final rule to adopt lower clearance levels, LEHA suggests that they be phased-in from 10 $\mu g/ft^2$ on floors to 7.5 $\mu g/ft^2$ on floors to 5 $\mu g/ft^2$ on the floors

over a 3 to5-year period. This will give states the necessary time to pass legislation, for research to occur to see if the lower levels are possible, and for contractors, risk assessors and others to adapt. As explained previously, LEHA does not believe that the lower proposed and primary alternatives for windowsills and troughs can ever be achieved due to inescapable analytical and surface area size issues.

LEHA looks forward to continuing its work with EPA and others to ensure that children have homes that support their health and that expand the supply of remediated homes. Please feel free to contact LEHA for more information at: Steve Weil (executive director) <steveaweil@gmail.com>. Thank you for the opportunity to comment on this proposed rule.

Sincerely,

Kathryn Kirkwood

Kate Kirkwood, President on behalf of the LEHA board