

**ENVIRONMENTAL PROTECTION  
AGENCY****40 CFR Part 745**[EPA-HQ-OPPT-2023-0231; FRL-8524-02-  
OCSPP]

RIN 2070-AK91

**Reconsideration of the Dust-Lead  
Hazard Standards and Dust-Lead Post-  
Abatement Clearance Levels****AGENCY:** Environmental Protection  
Agency (EPA).**ACTION:** Final rule.

**SUMMARY:** As part of EPA's high-priority efforts to reduce childhood lead exposure, and in accordance with a U.S. Court of Appeals for the Ninth Circuit 2021 opinion, EPA is finalizing its proposal to lower the dust-lead hazard standards to any reportable level as analyzed by a laboratory recognized by EPA's National Lead Laboratory Accreditation Program (NLLAP). EPA's lead-based paint (LBP) regulations do not compel property owners or occupants to evaluate their property for LBP hazards or to take control actions, but if a LBP activity such as an abatement is performed, then EPA's regulations set requirements for doing so. EPA is also finalizing changes to lower the post-abatement dust-lead clearance levels to 5 micrograms per square foot ( $\mu\text{g}/\text{ft}^2$ ), 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$  for floors, window sills and troughs respectively, the current levels in New York City. Due to feedback from public comments, EPA is also finalizing changes to the nomenclature to adopt the terms dust-lead reportable levels (DLRL) and dust-lead action levels (DLAL). Given the decoupling of the action levels from the reportable levels, EPA is finalizing revisions to the definition of abatement so that the recommendation for action based on dust-lead applies when dust-lead loadings are at or above the action levels, rather than the hazard standards, as has been the case historically. The dust-lead hazard standards will be described as DLRL moving forward (*i.e.*, after publication of this final rule) and the dust-lead clearance levels will be described as DLAL. Additionally, EPA is finalizing several other amendments, including revising the definition of target housing to conform with the statute.

**DATES:** This final rule is effective January 13, 2025. The incorporation by reference of certain material listed in this rule is approved by the Director of the **Federal Register** as of January 13, 2025.

**ADDRESSES:** The docket for this action, identified by docket identification (ID) number EPA-HQ-OPPT-2023-0231, is available online at <https://www.regulations.gov>. Additional information about dockets generally, along with instructions for visiting the docket in-person, is available at <https://www.epa.gov/dockets>.

**FOR FURTHER INFORMATION CONTACT:**

*For technical information:* Claire Brisse, Existing Chemicals Risk Management Division (7404M), Office of Pollution Prevention and Toxics, Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460-0001; telephone number: (202) 564-9004; email address: [brisse.claire@epa.gov](mailto:brisse.claire@epa.gov).

*For general information on lead:* The National Lead Information Center, 422 South Clinton Avenue, Rochester, NY 14620; telephone number: (800) 424-LEAD [5323]; online form: <https://www.epa.gov/lead/forms/lead-hotline-national-lead-information-center>.

*For general information on TSCA:* The TSCA Hotline, ABVI-Goodwill, 422 South Clinton Ave., Rochester, NY 14620; telephone number: (202) 554-1404; email address: [TSCA-Hotline@epa.gov](mailto:TSCA-Hotline@epa.gov).

*For hearing- or speech-impaired assistance:* Persons may reach the telephone numbers for the contacts through TTY by calling the toll-free Federal Communications Commission's Telecommunications Relay Service at 711.

**SUPPLEMENTARY INFORMATION:****I. Executive Summary***A. Does this action apply to me?*

You may be affected by this action if you conduct LBP activities in accordance with 40 CFR 745.227; if you operate a training program required to be accredited under 40 CFR 745.225; if you are a firm or individual who must be certified to conduct LBP activities or renovations in accordance with 40 CFR 745.226; or if you own, manage, and/or conduct abatement, rehabilitations or maintenance activities in most pre-1978 housing that is covered by a Federal housing assistance program in accordance with 24 CFR part 35. You may also be impacted by this rule if you administer the LBP activities program in States, territories, or Tribes that are authorized by EPA to operate their own lead abatement programs (40 CFR part 745, subpart Q) (see Unit V.A. for more information). You may also be affected by this action if you operate a laboratory that is recognized by EPA's National Lead Laboratory Accreditation Program in accordance with 40 CFR 745.90,

745.223, 745.227, and 745.327. You may also be affected by this action, in accordance with 40 CFR 745.107 and 24 CFR 35.88, as the seller or lessor of target housing, which is most pre-1978 housing. See 40 CFR 745.103 and 24 CFR 35.86. You may also be affected by this action if you are a resident of target housing, even if you would not be subject to the requirements of this action. Due to the change in the definition of "target housing," you may also be affected if you are a firm or individual who must be certified to perform renovations in target housing or child-occupied facilities (COFs) in accordance with 40 CFR part 745, subpart E.

The following list of North American Industrial Classification System (NAICS) codes is not intended to be exhaustive, but rather provides a guide to help readers determine whether this document applies to them. Affected entities may include:

- Building construction (NAICS code 236) (*e.g.*, single-family housing construction, multi-family housing construction, residential remodelers).
- Specialty trade contractors (NAICS code 238) (*e.g.*, plumbing, heating, and air-conditioning contractors, painting, and wall covering contractors, electrical contractors, finish carpentry contractors, drywall and insulation contractors, siding contractors, tile and terrazzo contractors, glass, and glazing contractors).
- Real estate (NAICS code 531) (*e.g.*, lessors of residential buildings and dwellings, residential property managers, and property owners, as well as those property owners that receive assistance through Federal housing programs).
- Child day care services (NAICS code 624410).
- Elementary and secondary schools (NAICS code 611110) (*e.g.*, elementary schools with kindergarten classrooms).
- Other technical and trade schools (NAICS code 611519) (*e.g.*, training providers).
- Engineering services (NAICS code 541330) and building inspection services (NAICS code 541350) (*e.g.*, dust sampling technicians).
- Lead abatement professionals (NAICS code 562910) (*e.g.*, firms and supervisors engaged in LBP activities).
- Testing laboratories (NAICS code 541380) (*e.g.*, those laboratories that analyze dust wipe samples for lead).
- Federal agencies that own residential property (NAICS codes 92511, 92811).

If you have questions regarding the applicability of this action to a particular entity, consult the regulations

or contact the technical information person listed in the **FOR FURTHER INFORMATION CONTACT** section.

*B. What is the Agency's authority for taking this action?*

EPA is finalizing this rule under the authority of sections 401, 402, 403, 404, and 406 of the Toxic Substances Control Act (TSCA), 15 U.S.C. 2601 *et seq.*, as amended by Title X of the Housing and Community Development Act of 1992 (also known as the Residential Lead-Based Paint Hazard Reduction Act of 1992 or "Title X") (Pub. L. 102-550) (Ref. 1) and section 237(c) of Title II of Division K of the Consolidated Appropriations Act, 2017 (Pub. L. 115-31, 131 Stat. 789), as well as sections 1004 and 1018 of Title X (42 U.S.C. 4851b, 4852d), as amended by section 237(b) of Title II of Division K of the Consolidated Appropriations Act, 2017.

TSCA section 403 (15 U.S.C. 2683) mandates EPA to identify LBP hazards for purposes of administering Title X and TSCA Title IV. Under TSCA section 401, LBP hazards are defined as conditions of LBP and lead-contaminated dust and soil that "would result in adverse human health effects," (15 U.S.C. 2681(10)) and lead-contaminated dust is defined as "surface dust in residential dwellings" that contains lead in excess of levels determined "to pose a threat of adverse health effects . . ." (15 U.S.C. 2681(11)). EPA has referred to the dust-lead portion of the LBP hazards as the dust-lead hazard standards. As explained in Unit IV.A. of this final rule, going forward EPA is also describing these as the dust-lead reportable levels in order to better connote their purpose under the revisions. In this document, EPA has endeavored to use the term dust-lead hazard standards or DLHS to describe the standards in place prior to this final rule and the term dust-lead reportable levels or DLRL to describe the standards in place going forward.

TSCA section 402 (15 U.S.C. 2682) directs EPA to regulate LBP activities, which include risk assessments, inspections, and abatements. TSCA section 401 (15 U.S.C. 2681) defines abatements as "measures designed to permanently eliminate lead-based paint hazards" and the term includes "all . . . cleanup . . . and post[-]abatement clearance testing activities" (15 U.S.C. 2681(1)). EPA has referred to the dust-lead level to be achieved after the post-abatement clearance activities as the dust-lead clearance levels. As explained in Unit IV.A. of this final rule, going forward EPA is also describing these as the dust-lead action levels in order to better connote their purpose under the

revisions. In this document, EPA has endeavored to use the term dust-lead clearance level or DLCL to describe the standards in place prior to this final rule and the term dust-lead action levels or DLAL to describe the standards in place going forward.

EPA's statutory authority for setting the hazard standards is laid out differently in Title X and TSCA Title IV than its authority for regulating clearance activities. In contrast to the grant of authority for setting hazard standards, EPA is directed, in promulgating the LBP activities regulations (including the DLAL), to "tak[e] into account reliability, effectiveness, and safety" (15 U.S.C. 2682(a)(1)).

Pertaining to the other amendments presented in Unit IV.G. of this preamble, TSCA section 406 (15 U.S.C. 2686) requires EPA, in consultation with the Secretary of the U.S. Department of Housing and Urban Development (HUD) and with the Secretary of the U.S. Department of Health and Human Services (HHS) to "publish, and from time to time revise, a lead hazard information pamphlet to be used in connection with this subchapter and section 4852d of title 42." TSCA section 406 (15 U.S.C. 2686) also requires EPA's regulations to require any person performing for compensation a renovation of target housing to provide the pamphlet to the owner and occupant prior to commencing the renovation. Additionally, section 1018 of Title X (42 U.S.C. 4852d) mandates that the Lead Warning Statement to be provided in contracts for the purchase or sale of target housing include, among other language, the following text: ". . . The seller of any interest in residential real property is required to provide the buyer with any information on lead-based paint hazards from risk assessments or inspections in the seller's possession and notify the buyer of any known lead-based paint hazards." TSCA section 401 (15 U.S.C. 2681(17)) and section 1004 of Title X (42 U.S.C. 4851b), as amended by section 237(b) and (c) of Title II of Division K of the Consolidated Appropriations Act, 2017 (Pub. L. 115-31, 131 Stat. 789), define target housing as "any housing constructed prior to 1978, except housing for the elderly or persons with disabilities or any 0-bedroom dwelling (unless any child who is less than 6 years of age resides or is expected to reside in such housing) . . ." In this context, "housing for the elderly" refers to retirement communities or similar types of housing reserved for households composed of one or more persons 62 years of age or

more at the time of initial occupancy (40 CFR 745.103). Note that HUD's Lead Safe Housing Rule (LSHR) caveats its definition of "housing for the elderly" at 24 CFR 35.110 to rely on an age other than 62 years "if recognized as elderly by a specific Federal housing assistance program."

*C. What action is the Agency taking?*

In 2019, EPA promulgated a final rule to lower the DLHS to 10  $\mu\text{g}/\text{ft}^2$  for floors and 100  $\mu\text{g}/\text{ft}^2$  for window sills (the 2019 Final Rule) (Ref. 2). In 2021, EPA promulgated a final rule to lower the DLCL to 10  $\mu\text{g}/\text{ft}^2$  for floors and 100  $\mu\text{g}/\text{ft}^2$  for window sills (the 2021 Final Rule) (Ref. 3). The 2019 Final Rule and the 2021 Final Rule continued a long-standing practice of setting the same levels for the DLHS and the DLCL and basing those levels in part on consideration of factors such as laboratory capacity and capabilities. On August 1, 2023, EPA proposed revisions in keeping with an opinion issued by the U.S. Court of Appeals for the Ninth Circuit (the Court) in 2021 (described in Unit I.D.) that instructed EPA to consider only health factors when setting the DLHS (described as DLRL moving forward) and that EPA must continue to consider non-health factors (e.g., laboratory capabilities/capacity, and achievability after an abatement) when setting the DLCL (described as DLAL moving forward). Note that due to feedback from public comments, EPA is finalizing the previously mentioned changes to the nomenclature, from DLHS to dust-lead reportable level and from DLCL to dust-lead action level (see Unit IV.A., for more discussion on this terminology change).

EPA is finalizing the proposed changes to the DLRL from 10  $\mu\text{g}/\text{ft}^2$  for floors and 100  $\mu\text{g}/\text{ft}^2$  for window sills, as established in the 2019 Final Rule, to any reportable level of dust-lead analyzed by a NLLAP-recognized laboratory. The DLRL is not a static level set by EPA but rather the numerically reportable level as analyzed by a NLLAP-recognized laboratory. The approach represents a shift in the LBP activities program to a more inclusive DLRL, which will identify dust-lead hazards in the context of TSCA Title IV as any reportable level of dust-lead in target housing and child-occupied facilities and will not distinguish based on health risks posed. Additional discussion on DLRL can be found in Unit IV.B.

Additionally, EPA is finalizing a reduction of 50% or more in the values set by the 2021 Final Rule to the proposed alternative DLAL, from 10  $\mu\text{g}/\text{ft}^2$  to 5  $\mu\text{g}/\text{ft}^2$  for dust-lead for floors,

from 100  $\mu\text{g}/\text{ft}^2$  to 40  $\mu\text{g}/\text{ft}^2$  dust-lead for window sills and from 400  $\mu\text{g}/\text{ft}^2$  to 100  $\mu\text{g}/\text{ft}^2$  dust-lead for window troughs. The reportable level for floors and window sills will not be the same as the action level for floors and window sills (*i.e.*, the standards will be decoupled), acknowledging the different statutory direction that Congress provided EPA with respect to each. As a result, EPA is also finalizing the proposed amendment to 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 final DLAL; thus modifying the trigger so that the *recommendation for action applies when dust-lead loadings are at or above the dust-lead action levels*, rather than the hazard standards (described as dust-lead reportable levels moving forward), as has been the case historically. Note that EPA's LBP regulations do not automatically compel property owners or occupants to evaluate their property for LBP hazards or to take control actions, but if a LBP activity such as an abatement is performed, then EPA's regulations set requirements that must be met while doing so. EPA is also finalizing a requirement to include an additional statement in the final abatement reports that States that LBP hazards (particularly dust-lead hazards) remain after an abatement if post-abatement testing has found that reportable levels remain below the action levels. See Unit IV.E., and Unit IV.F. for additional information on these programmatic changes.

EPA is also finalizing several other amendments to 40 CFR part 745, subparts E (Residential Property Renovation), F (Disclosure of Known Lead-Based Paint and/or Lead-Based Paint Hazards Upon Sale or Lease of Residential Property), and L (Lead-Based Paint Activities), including: conforming changes to the definition of "target housing;" conforming the age requirements throughout the LBP regulations to under six years old; requiring that application payments, applications, and notices be submitted electronically; updating the Disclosure Rule warning statement (Ref. 4); correcting an incorrect reference to the lead-hazard control pamphlet; deleting obsolete regulatory text where language is out of date or no longer applicable; and adding incorporations by reference of two voluntary consensus standards already included in a relevant definition.

#### *D. Why is the Agency taking this action?*

Lead exposure has the potential to impact individuals of all ages, but it is especially harmful to young children because the developing brain can be particularly sensitive to environmental contaminants (Refs. 5 and 6). Because of this, reducing childhood lead exposure is a priority for both EPA and the Federal government. In December 2018, the President's Task Force on Environmental Health Risks and Safety Risks to Children released the *Federal Action Plan to Reduce Childhood Lead Exposures and Associated Health Impacts* (Federal Lead Action Plan) (Ref. 7) to enhance the Federal government's efforts to identify and reduce lead exposure while ensuring children impacted by such exposure are getting the support and care they need to prevent or mitigate any associated health effects. The Federal Lead Action Plan is helping Federal agencies to work strategically and collaboratively to reduce exposure to lead and improve children's health. On October 27, 2022, EPA released the *Strategy to Reduce Lead Exposures and Disparities in U.S. Communities* (EPA Lead Strategy). The EPA Lead Strategy lays out Agency and governmentwide approaches to strengthen public health protections, address legacy lead contamination for communities with the greatest exposures and promote environmental justice. It describes how the Agency will utilize the full suite of EPA authorities, expertise, and resources to continue to reduce lead exposure. This final rule, which revises the DLRL and the DLAL, among other regulatory changes, is an action that EPA committed to undertake in the EPA Lead Strategy (Ref. 8).

In 2019, EPA re-evaluated the DLHS (described as DLRL moving forward) (Ref. 2). Based on that evaluation, the final rule revised the DLHS from 40  $\mu\text{g}/\text{ft}^2$  and 250  $\mu\text{g}/\text{ft}^2$  to 10  $\mu\text{g}/\text{ft}^2$  and 100  $\mu\text{g}/\text{ft}^2$  for floors and window sills, respectively. However, public health advocates filed a lawsuit in the U.S. Court of Appeals for the Ninth Circuit seeking judicial review of the 2019 Final Rule as insufficiently protective. On May 14, 2021, the Court issued its opinion on the 2019 Final Rule. The Court held that "the 2019 Rule lowers the lead hazard level but not to a level sufficient to protect health as Congress has directed, because the EPA has looked to factors in addition to health." *A Cmty. Voice v. U.S. Env't Prot. Agency*, 997 F.3d 983, 992 (9th Cir. 2021). The remedy the Court granted was a remand without vacatur of the lowered standard, and the Court instructed EPA to consider only health

factors when setting the DLHS (Ref. 9). The 2023 Proposed Rule was issued to reconsider the DLHS and DLCL in light of the 2021 Court Opinion, which directed EPA to "reconsider the DLHS . . . [and] the dust-lead clearance levels . . . in the same proceeding" and affirmed that EPA must consider non-health factors when setting the DLCL (described as DLAL moving forward). *A Cmty. Voice*, 997 F.3d at 995. This 2021 Court Opinion led EPA to undertake a major shift from its approach in the 2019 and 2021 final rules to the LBP activities program because the Court found that EPA did not have the authority, when setting the DLHS, to consider non-health factors. Consistent with the 2021 Court Opinion and based on the Agency's careful review of the public comments received on the proposal, EPA is finalizing the DLRL in this rulemaking as proposed, based on only health considerations, as well as finalizing the proposed alternative DLAL, based on a variety of factors. See Unit IV. for more information on the final revisions to the DLRL and DLAL.

#### *E. What are the estimated incremental impacts of this action?*

EPA has prepared an Economic Analysis (EA), which is available in the docket, of the potential incremental impacts associated with this rulemaking (Ref. 10). The analysis focused specifically on the subset of target housing and child-occupied facilities affected by this rule. Although the DLHS and DLCL do not compel specific actions under the LBP Activities Rule to address identified LBP hazards, the DLHS and DLCL are directly cross-referenced in certain requirements mandated by HUD in the housing subject to HUD's LSHR. As such, the analysis estimates incremental costs and benefits for two categories of events: (1) where dust-wipe testing occurs to comply with HUD's Lead-Safe Housing Rule; and (2) where dust wipe testing occurs in response to blood lead testing that detects a blood lead level (BLL) above State or Federal action levels. The following is a brief outline of the estimated incremental impacts of this rulemaking.

##### 1. Benefits

This rule will result in reduced exposure to lead, yielding benefits to residents of pre-1978 housing from avoided adverse health effects. Using a 2% discount rate, the annualized benefits of improved cognitive function in children (quantified using the effect of avoided IQ decreases on lifetime earnings) are estimated to be \$831 million to \$3.1 billion per year; the

annualized benefits of reduced cases of attention deficit hyperactivity disorder (ADHD) in children are estimated to be \$129 million to \$274 million per year; and the annualized benefits of reduced cases of cardiovascular mortality in adults are estimated to be \$614 million to \$6.9 billion per year. The total annualized quantified benefits for all health endpoints are estimated to range from \$1.6 billion to \$10.3 billion per year. EPA also analyzed the effect of mothers' exposures to lead on the risk of low birthweight in their infants, but the analysis found that the resulting changes in infant birthweight could not be monetized using EPA's cost-of-illness approach. Nevertheless, the increases in birth weights from this rule, however small, may still reduce initial birth-related costs and hospitalization costs incurred by mothers.

These benefits calculations are sensitive to the range in the estimated number of lead hazard reduction events triggered by children with tested BLLs above State action thresholds or the Centers for Disease Control and Prevention (CDC) blood lead reference value (BLRV) of 3.5 micrograms per deciliter ( $\mu\text{g}/\text{dL}$ ). The wide range is driven largely by uncertainty about the BLLs at which action might be taken, since in many States the action level is currently higher than the Federal blood lead reference value. The benefit estimates are also sensitive to the concentration response function used to estimate the number of reduced cases of premature cardiovascular mortality in adults, and the assumed rate of soil and dust ingestion by adults. EPA undertook a rigorous process to identify concentration response functions to quantify benefits. This included reviewing all available studies which could be used to develop quantitative relationships between changes in lead exposure and/or changes in blood lead levels and changes in health endpoints. EPA evaluated the studies for quality and potential biases. EPA then developed a separate report for each health endpoint. In addition to the quality review findings, each report provides quantitative estimates, based on the identified functions, of potential changes in the health endpoint and was reviewed by EPA experts and/or externally peer reviewed. For the analysis of this final rule EPA has relied on concentration response functions for four quantified health endpoints that have been extensively reviewed by the agency and in the case of reductions in IQ losses, low birth weight and cardiovascular disease premature mortality, externally peer reviewed.

Also, the approach used for IQ has been used in multiple prior rulemakings and undergone SAB review. EPA will consider updates to the benefits estimation methodologies and peer review as appropriate and as new information becomes available in the future.

Additionally, there may be benefits that are unquantified. These additional benefits might include avoided adverse health effects, including reduced post-natal growth, delayed puberty, and decreased kidney function in children, cancer, and impacts on reproductive function and outcomes in adults.

## 2. Costs

This rule is estimated to result in quantified costs of \$207 million to \$348 million per year. These costs are expected to accrue to landlords, owners and operators of child-occupied facilities, residential remodelers, and abatement firms. Real estate agents and brokers may incur negligible costs related to the target housing definition amendment. The cost calculations are highly sensitive to the range in the estimated number of lead hazard reduction events triggered by children with higher BLLs. In the events affected by this rule, incremental costs can be incurred for specialized cleaning used to reduce dust-lead loadings (*i.e.*, quantity of lead per unit of surface area) to below the action levels. In some instances, floors will also be sealed, overlaid, or replaced, or window sills will be sealed or repainted. Additional costs may result from the retesting of dust-lead levels. Additional potential impacts to HUD programs and their beneficiaries are discussed in Unit V.

## 3. Small Entity Impacts

This rule will directly impact approximately 18,000 small businesses of which 85% to 86% have cost impacts less than 1% of revenues, 12% to 13% have impacts between 1% and 3%, and 2% have impacts greater than 3% of revenues. These small entities include landlords, owners and operators of child-occupied facilities, residential remodelers, abatement firms, and real estate agents and brokers.

## 4. Environmental Justice

EPA is finalizing this rulemaking under TSCA Title IV, as explained in Unit I.B. This rule would address lead exposure, as discussed throughout this preamble. EPA prepared an Economic Analysis for this rulemaking that assessed whether there are disproportionate effects to communities from lead exposure. EPA identified an existing concern: children living in

communities with environmental justice concerns have significantly higher BLLs than other children (Ref. 11). This rule addresses health concerns for all affected communities, including those identified with environmental justice concerns. As identified in EPA's Economic Analysis, the rule is expected to affect housing units receiving Federal assistance under HUD's LSHR and housing units with a child with a BLL above the Federal BLRV, or above a State, or local blood lead action level. Because, in general, only lower income households are eligible to receive Federal housing assistance, the occupants of housing subject to the LSHR (and thus benefitting from the regulation) are considered an overburdened community. Additional details on any identified disproportionate impacts to communities with environmental justice concerns are contained in Unit IX.J. of this preamble and Section 8.6 of the Economic Analysis.

## 5. Children's Environmental Health

Consistent with Executive Order 13045, EPA evaluated the health and safety effects of this action on children. Children are disproportionately impacted by lead exposure. Children can have greater exposures than adults because they crawl on floors and often put their hands and other objects (that can have lead from dust on them) into their mouths and are more susceptible than adults to adverse health effects associated with lead exposure due to their rapid anatomical growth and physiological differences in lead uptake and metabolism. This rule protects children from these disproportionate environmental health risks.

This action is also subject to EPA's Policy on Children's Health (<https://www.epa.gov/children/childrens-health-policy-and-plan>) because the rule has considerations for human health and early life exposures. Accordingly, EPA has evaluated the environmental health or safety effects of dust-lead exposure on children. The results of this evaluation are contained in the EA and the Technical Support Document (TSD), where the health impacts of lead exposure on children are discussed more fully (Refs. 10 and 12). The documents referenced in this unit are available in the public docket for this action.

A primary purpose of this rule is to reduce exposure to dust-lead hazards in target housing where children reside and in child-occupied facilities. EPA's analysis indicates that there will be approximately 178,000 to 326,000 children under age six per year affected

by the rule, and 83,000 to 158,000 children between the ages of six and fifteen per year (Ref. 10). Using a 2% discount rate, the total annualized quantified benefits for children's health endpoints (improved cognitive function and reduced cases of ADHD) are estimated to range from \$960 million to \$3.4 billion per year.

#### 6. Effects on State, Local, and Tribal Governments

EPA has concluded that this action has federalism implications because of the potential effects on certain public housing authorities. These compliance costs result from application of EPA's standards in HUD's LSHR. While some HUD funding for LBP projects exists, the Federal government may not provide the funds necessary to pay the entirety of the costs. As described in Section 8.8 of the EA (Ref. 10), the costs to public housing authorities that include State, local, and Tribal governments—estimated at \$27 million per year—cover additional lead hazard reduction activities, cleaning, and dust-lead testing to ensure that public housing units are in compliance with the LSHR. State and local governments may provide additional funding to pay for some of these costs. EPA also estimates annual compliance costs of approximately \$850,000 per year to public school districts that operate a child-occupied facility built before 1978. Additionally, States that have authorized LBP activities programs must demonstrate that they meet any new requirements imposed by this rulemaking and are at least as protective as the levels at 40 CFR 745.65 and 40 CFR 745.227. However, authorized States are under no obligation to continue to administer the LBP activities program, and if they do not wish to adopt the new DLRL and DLAL they can relinquish their authorization. In the absence of a State authorization, EPA will administer these requirements. EPA provides a federalism summary impact statement, which is found in Unit IX.E.

This action contains a Federal mandate under the Unfunded Mandates Reform Act (UMRA), 2 U.S.C. 1531–1538, that may result in expenditures of \$183 million or more in 2023 dollars (\$100 million or more in 1995 dollars, adjusted for inflation) for State, local, and Tribal governments, in the aggregate, or the private sector in any one year. Accordingly, EPA has prepared a written statement as required under section 202 of UMRA, which is summarized in Unit IX.D. and included in the public docket (Ref. 13). This action is not subject to the requirements

of section 203 of UMRA because it contains no regulatory requirements that exceed the inflation-adjusted cost significance threshold or uniquely affect small governments.

This action will not have substantial direct effects (as specified in Executive Order 13175) on one or more federally recognized Indian Tribes. This action neither creates an obligation for Tribes to administer LBP activities programs nor alters EPA's authority to administer these programs.

Additionally, this rule would not have any significant or unique effects on small governments. See Unit IX. for more information on the executive orders.

## II. Background

### A. Health Effects of Lead

Lead exposure has the potential to impact individuals of all ages, but it is especially harmful to young children because the developing brain can be particularly sensitive to environmental contaminants (Refs. 5, 6, 14). Ingestion of lead-contaminated dust is a major contributor to BLLs in children, particularly to those who reside in homes built prior to 1978 (Refs. 13 and 15). Throughout early childhood, floor dust contamination is a source of lead exposure with the potential to affect children's BLLs (Ref. 16). Infants, toddlers, and other young children are more highly exposed to lead through dust on floors and other surfaces at home and in child care facilities than older children and adults because they crawl on floors and often put their hands and other objects that can have lead from dust on them into their mouths. This is the main pathway of exposure to lead for young children (Ref. 5).

Lead exposure in young children can cause neurocognitive decrements, such as reduction in intelligence as measured by IQ. Depending on the exposure and other factors, the effect may persist into adolescence and adulthood (Refs. 5, 6 and 16). In children, lead exposure can also cause adverse developmental, neurobehavioral, hematological, and immunological effects (Refs. 5, 6, and 14). In adults, lead exposure can cause adverse cardiovascular, hematological, renal, neurocognitive, psychopathological, immunological, and reproductive effects (Refs. 5, 6, and 14). Lead is also classified as "reasonably anticipated" to be a human carcinogen by the National Toxicology Program (NTP) (Ref. 17) and EPA has concluded that lead exposure has a "likely causal" relationship with carcinogenesis (Ref. 5). In addition to

the risk of harmful effects posed to the mother, lead can be transferred to the fetus during pregnancy with increased risk of adverse effects on the developing fetus (Refs. 5 and 14). Given young children's disproportionate exposure to dust-lead in target housing, this rulemaking principally considers their exposure and associated adverse health effects, although dust-lead exposure and adverse health effects in adolescents and adults are also considered when estimating the rule's benefits (Ref. 10).

Currently available scientific information informs EPA's understanding of the relationships between exposures to dust-lead, BLLs, and adverse human health effects. These relationships are summarized in the Integrated Science Assessment (ISA) for Lead, finalized in January 2024 (known as the 2024 Lead ISA) (Ref. 5), and the Agency for Toxic Substances and Disease Registry (ATSDR) Toxicological Profile for Lead, which was released by the Department of Health and Human Services in August 2020 ("ATSDR Tox Profile for Lead") (Ref. 6). The 2024 Lead ISA is a synthesis and evaluation of scientific information on the health and environmental effects of lead, including cognitive function decrements in children (Ref. 5). The 2024 Lead ISA, as well as NIEHS' 2012 NTP monograph on lead, summarize the scientific evidence regarding potential health effects associated with low-level lead exposure and also note uncertainties in the data (Refs. 5 and 14). Based on the epidemiological studies and the evidence available, EPA stated in the 2024 ISA that blood-lead-associated effects on children's cognition as measured by IQ were observed in groups of children with mean BLLs as low as 2 µg/dL, and further that that "the collective body of epidemiologic studies provides no evidence of a threshold for cognitive effects in children across the range of BLLs examined." This body of evidence includes studies which found effects on children's cognition in some groups of children with prenatal and early childhood blood lead or concurrent blood lead in the range of <1 to 10 µg/dL (Ref. 5).

For further information regarding lead and its health effects, see the TSD for this rulemaking and the 2024 ISA for lead (Refs. 5 and 12).

### B. Federal Actions To Reduce Lead Exposures

Title X of the Housing and Community Development Act (also known as the Residential Lead-Based Paint Hazard Reduction Act of 1992 or "Title X"), codified primarily at 42

U.S.C. 4822 and 4851 *et seq.* (Ref. 1), was a Federal response to the national crisis of childhood lead exposure and assigned responsibilities to Federal agencies with the overall goal of developing a “national strategy to build the infrastructure necessary to eliminate lead-based paint hazards in all housing as expeditiously as possible” (42 U.S.C. 4851(a)(1)). Subtitle B of Title X (106 Stat. 3912 through 3924), addressing lead exposure reduction, added Title IV to TSCA (codified at 15 U.S.C. 2681 *et seq.*) (Ref. 18).

Since the establishment of Title X, EPA and HUD have promulgated both joint and separate regulatory actions in an effort to eliminate LBP hazards. Those actions include requirements for disclosure of known LBP or any known LBP hazards (Ref. 4), training and certification requirements for contractors performing LBP activities (Ref. 19), the establishment in 2001 of standards that identify lead-based paint hazards and post-abatement clearance levels (*i.e.*, the DLHS and DLCL) (in the rule entitled, “Identification of Dangerous Levels of Lead,” see 66 FR 1206, January 5, 2001 (FRL–6763–5), also known as the 2001 LBP Hazards Rule) (Refs. 2, 3 and 20), regulations covering renovation or remodeling activities (Refs. 21, 22 and 23), provisions for interested States, territories, and Tribes to apply for and receive authorization to administer their own LBP Activities and renovation, repair and painting (RRP) programs, and requirements to control LBP and LBP hazards in federally assisted target housing (Ref. 24). Additional description of and background on Federal actions to reduce lead exposure can be found in the 2021 Final Rule (Ref. 3).

In addition, the Federal Lead Action Plan, which was written by the President’s Task Force on Environmental Health Risks and Safety Risks to Children, consisting of 17 Federal departments and offices, states: “Lead exposure to children can result from multiple sources and can cause irreversible and life-long health effects. No safe blood lead level in children has been identified” (Refs. 7 and 25). The Agency has also developed an EPA Lead Strategy to lay out an all-of-EPA plan to strengthen public health protections and address legacy lead contamination for communities with the greatest exposures and promote environmental justice (<https://www.epa.gov/lead/final-strategy-reduce-lead-exposures-and-disparities-us-communities>). EPA plans to continue its work to equitably protect people of all races, ethnic groups, income levels, disabilities, and life

stages, including young children and pregnant women, who are the most vulnerable to the toxic effects of lead. The actions in this final rule are part of those efforts, as dust-lead from lead-based paint remains one of the leading causes of lead exposure in the United States (Ref. 8).

### *C. Applicability and Uses of DLRL and DLAL*

The reportable level and action level reconsidered in this regulation support EPA’s LBP activities program (*i.e.*, inspections, risk assessments, and abatements) (codified at 40 CFR part 745, subpart L), which applies to target housing (*i.e.*, most pre-1978 housing) and COFs (pre-1978 properties where children under 6 years of age spend a significant amount of time such as daycare centers and kindergartens). The statutory definition of target housing was amended by Congress in 2017, and EPA is making the necessary conforming regulatory changes, including finalizing the age to under 6 years of age, in this rulemaking; see Unit IV.F.1. for more information. Apart from COFs, no other public or commercial buildings are covered by this proposal.

The DLRL and DLAL are incorporated into requirements for risk assessment and post-abatement work. When conducted, LBP activities must be performed by a certified individual or firm (40 CFR 745.220) in accordance with the work practices outlined in the 1996 LBP Activities Rule (40 CFR 745.227). EPA administers the LBP activities program only where States (including the District of Columbia and the Commonwealth of Puerto Rico), territories, or Tribes are not authorized by EPA to operate their own lead abatement programs (see 40 CFR part 745, subpart Q). Currently the States in which the LBP program is administered by EPA are Alaska, Arizona, Florida, Idaho, Montana, Nevada, New Mexico, New York, South Carolina, South Dakota, and Wyoming. EPA also administers the LBP program in the territories of American Samoa, Guam, Northern Marianas, and the U.S. Virgin Islands, as well as most Tribal Lands. All other States have EPA-authorized LBP programs. Additionally, the Cherokee Nation, Upper Sioux Community, Lower Sioux Indian Community, and the Bois Forte Band of Chippewa have EPA-authorized LBP programs, which ultimately must be at least as protective of human health and the environment as EPA’s program and provide adequate enforcement (this rule’s impact on authorized programs is discussed briefly in Unit V.A.).

### 1. Dust-Lead Reportable Levels

The DLRL support and implement major provisions of TSCA Title IV and provide the basis for risk assessors to determine whether dust-lead hazards are present during a risk assessment or a lead hazard screen. A risk assessment, where dust wipe testing occurs, may be required by the LSHR in certain circumstances (*e.g.*, for certain properties receiving Federal assistance) or by other laws or regulations where dust-lead testing occurs in response to the discovery of a child with a BLL that exceeds a Federal, State, or local threshold, or in a situation to comply with State or local requirements. Additional information on the LSHR and the subparts which require risk assessment are discussed in the EA (Ref. 10). The objective of a risk assessment is to determine, and then report, the existence, nature, severity, and location of LBP hazards in residential dwellings and COFs through an on-site investigation, which includes both a visual assessment and a collection of environmental samples. The visual inspection for a risk assessment includes an examination to determine the existence of deteriorated (*e.g.*, cracking, flaking, chipping, peeling) LBP or other potential sources of LBP hazards. The environmental samples include, among other things, dust wipe samples (taken using documented methodologies as defined in 40 CFR 745.227(a)(3)) from floors and window sills. Those samples are required to be analyzed by a laboratory that is recognized under NLLAP, which is an EPA program that defines the minimum standards that laboratories must meet to attain EPA recognition as an accredited testing laboratory (the standards for the program are laid out in the Laboratory Quality Standards for Recognition) (Ref. 26). A risk assessor compares the results of the dust wipe samples to the applicable hazard standard (currently the DLHS and, upon implementation of this final rule, the DLRL). If the dust-lead loadings from the samples are at or above the applicable standard, then a dust-lead hazard is present (40 CFR 745.227(d)).

Ultimately, the risk assessor prepares a risk assessment report for the property owner or manager, which lists any LBP hazards (including a dust-lead hazard) that were found and includes any recommendations for next steps, such as acceptable options for controlling the hazards via interim controls and/or abatement. These options are intended to allow the property owner to make an informed decision about what actions to take to protect the health of current and

future residents. Under EPA's rule, a risk assessment or risk assessment report does not compel or require action; rather it simply provides property owners with recommendations as appropriate (40 CFR 745.227(d)). However, HUD and some State or local governments may require action depending on whether a LBP hazard is present; see Unit V. for more information on the impacts of this final rule.

A lead hazard screen also includes a visual inspection and collection of environmental samples, although it is not as comprehensive as a risk assessment nor conducted as often. A lead hazard screen may be used to determine if a full risk assessment is necessary. During a lead hazard screen, a risk assessor checks for deteriorated LBP and collects two composite dust samples (in residential dwellings), one from floors and one from window sills (more composite dust samples are required in multi-family dwellings or COFs). Samples are taken using documented methodologies. The risk assessor prepares a lead hazard screen report but is not required to include determinations about the LBP hazards or recommendations for interim controls and/or abatement but could include information on whether a follow-up risk assessment is warranted (40 CFR 745.227(c)).

Both risk assessments and lead hazard screens can only be performed by risk assessors certified according to the procedures in 40 CFR 745.226.

## 2. Dust-Lead Action Levels

The DLAL are incorporated into the post-abatement work practices outlined in the LBP Activities Rule and represent "the amount of lead in dust on a surface following completion of an abatement activity" (40 CFR 745.227, 745.223) (Ref. 19). TSCA section 401 defines abatements as "measures designed to permanently eliminate lead-based paint hazards" (15 U.S.C. 2681(1)), while interim controls are "designed to temporarily reduce human exposure or likely exposure to lead-based paint hazards" (40 CFR 745.83 and 745.223). Abatement and/or interim controls could be recommended in a risk assessment report to inform the property owner about potential future action(s) they could take. After an abatement is complete (40 CFR 745.227(e)(8)) and after interim control work above HUD's de minimis level of paint disturbance, under HUD's Lead Safe Housing Rule is complete (24 CFR 35.1340(b)), a risk assessor or inspector determines whether there are any "visible amounts of dust, debris or residue," which need

to be removed before dust-wipe sampling takes place (40 CFR 745.227(e)(8)). Once the area is free of visible dust, debris, and residue, and one hour or more after final post-abatement cleaning ceases, sampling for dust-lead (via dust wipe samples) can take place and will be conducted "using documented methodologies that incorporate adequate quality control procedures" (40 CFR 745.227(e)(8)). Only a properly trained and certified risk assessor or inspector can conduct clearance sampling. An NLLAP-recognized laboratory must analyze the dust wipe samples and a risk assessor or inspector must compare the results from window sills, floors, and window troughs to the appropriate DLAL.

Every post-abatement sample must test below the DLAL in order to fulfill the post-abatement work practices of the LBP Activities Rule. If a single sample is equal to or greater than the corresponding DLAL, then the abatement fails to be successfully completed and the components represented by the failing sample must be re-cleaned and retested (40 CFR 745.227(e)(8)). After all dust wipe samples show dust-lead loadings below the DLAL, an abatement report is prepared (in accordance with the requirements in 40 CFR 745.227(e)(10)), copies of any reports required under the LBP Activities Rule are provided to the building owner (and to potential lessees and purchasers under the LBP Disclosure Rule by those building owners or their agents), and all required records are retained by the abatement firm or by the individuals who developed each report for no fewer than three years (40 CFR 745.227(i)).

### D. Limitations of DLRL and DLAL

The DLRL are intended to identify dust-lead hazards during risk assessments, while the DLAL are part of post-abatement work practices. Both regulatory values have several key limitations. Since the DLRL and DLAL were established and revised for the purposes of Title X and TSCA Title IV only, they do not apply to housing and COFs built during or after 1978, nor do they apply to pre-1978 housing that does not meet the definition of target housing (40 CFR 745.61 and 745.223). If one chooses to apply the DLRL or the DLAL to situations beyond the scope of Title X and TSCA Title IV, care must be taken to ensure that the action taken in such settings is appropriate, and that the action is adequate to provide any necessary protection for children or other individuals exposed.

These standards cannot be used to identify that housing is free from all

risks from exposure to lead including but not limited to dust-lead, soil-lead, or lead in drinking water, as risks are dependent on many factors. For instance, the physical condition of a property that contains LBP may change over time, resulting in an increase in risk. Plus, EPA's DLRL do not require the owners of properties covered by this rule to evaluate their properties for the presence of dust-lead hazards, nor to take action if dust-lead hazards are identified (although these standards can be incorporated into certain requirements mandated by State, Tribal and local governments, as well as other Federal agencies). Additionally, consistent with the 2021 Court Opinion that instructed EPA to consider only health factors when setting the DLHS (described as DLRL moving forward) and affirmed that EPA must consider other factors (*i.e.*, reliability, effectiveness, and safety) when setting the DLCL (described as DLAL moving forward), EPA is finalizing the DLAL as greater than the DLRL based on EPA's consideration of other factors (*e.g.*, laboratory capabilities/capacity, and achievability after an abatement). As a result and given the change in the definition of abatement discussed in Unit IV.E. of this preamble, there may be dust-lead remaining that meets the definition of a LBP hazard after an abatement is considered complete, due to dust-lead levels that are reportable but are less than the DLAL. Also, as has been the case historically, achieving the DLAL after an abatement does not mean that the home is lead safe or is free from all exposure to lead, including from other media such as soil-lead or lead in drinking water. EPA will continue coordinating with other Federal agencies to encourage best practices for owners and occupants of post-abatement properties to conduct ongoing maintenance that will help to continue to lower dust-lead levels, as well as working collectively among the Agency's offices to reduce overall lead exposure through all pathways.

### E. Litigation Overview

As previously discussed, EPA revised the DLHS to 10  $\mu\text{g}/\text{ft}^2$  for floors and 100  $\mu\text{g}/\text{ft}^2$  for window sills in a final rule in July 2019 (Ref. 2). On May 14, 2021, in response to a Petition for Review that was filed shortly after the final rule was published, the Court remanded the 2019 Final Rule without vacatur and directed EPA to revisit it in conjunction with a reconsideration of the DLCL (Ref. 9). In its opinion accompanying the remand, the Court instructed EPA to consider only health factors when setting the DLHS (described by EPA as DLRL



moving forward) and affirmed that EPA must continue to consider non-health factors when setting the DLCL (described by EPA as DLAL moving forward). Specifically, the 2021 Court Opinion held that EPA's 2019 Final Rule "looked to other factors, including feasibility and efficacy," when setting the DLHS, instead of "set[ting] the hazard standards at the point at which the level [of] dust-lead creates hazards to human health" *A Cmty. Voice*, 997 F.3d at 989 and 990. The Court also held that "TSCA [Title] IV gives the EPA latitude to consider 'reliability, effectiveness, and safety'" when promulgating regulations "[w]ith respect to implementation, including abatement," thus enabling consideration of practicability when setting the DLCL. *Id.* at 995. The Court explained that "[t]his is in line with the overall statutory scheme that differentiates between identification of hazards and implementation of remedial measures." *Id.* The Court also explained elsewhere in the 2021 Court Opinion that, if an agency relies on uncertainty for regulatory action or inaction, the agency must "provide reasons why uncertainty justifies their actions" *Id.* at 993. Consistent with the 2021 Court Opinion, EPA is finalizing revisions to the DLRL in this rulemaking based only on health considerations.

In addition, the Court held that EPA violated TSCA Title IV by leaving the soil-lead hazard standards (SLHS) at the values set in 2001, reasoning that EPA had an ongoing duty to update the standards. The SLHS identify lead-contaminated soil at target housing and pre-1978 COFs that would result in adverse human health effects. Soils that contain lead at levels determined to be hazardous to human health are considered contaminated. Lead inspectors, risk assessors, and abatement professionals use the SLHS to determine if soil-lead hazards are present and to inform options for reducing risk, such as during the risk assessment process. Due to resource considerations and to act as expeditiously as possible to revise the DLRL and DLAL, EPA will address the SLHS in a separate rulemaking. (For more background on resource constraints under TSCA, please see Congressional testimony from EPA leadership (Refs. 27, 28, 29, 30 and 31)). EPA listed this SLHS rulemaking in the Spring 2024 Unified Agenda of Regulatory and Deregulatory Actions under RIN 2070-AL12 as a long-term action, indicating the Agency's commitment to meet the statutory requirement of addressing the SLHS

revision but indicating that the Agency does not expect to propose this action in the 12 months following the agenda entry (Ref. 32). EPA has, however, initiated work on the SLHS rulemaking and is continuing to allocate additional resources to it as this reconsideration rulemaking is finalized. The Agency also intends to build off of the technical analysis utilized for this rulemaking for the SLHS rulemaking, mirroring where possible so as to reduce resource constraints and considerations. EPA plans to issue a proposed SLHS rulemaking in 2026.

The Court also held that, to be consistent with its health-only interpretation of a LBP hazard (*i.e.*, soil, dust), the definition of LBP must "encompass all levels of lead in paint that lead to adverse human health effects." *A Cmty. Voice*, 997 F.3d at 992. The Court stated that "EPA ha[d] not explained why uncertainty justifies its decision to leave the definition of lead-paint as-is." *Id.* at 993. The Court also noted that much knowledge has been gained since Congress adopted the 1992 definition and that the U.S. Consumer Product Safety Commission (CPSC) has adopted a regulation that bans the production of paint with lead content of over 0.009 percent by weight. The CPSC standard, however, applies to *new* paint while TSCA is concerned with the hazards posed by *existing* paint in pre-1978 structures and different information and considerations are relevant in that context. The definition of LBP (1.0 milligrams per square centimeter or more than 0.5 percent by weight) is incorporated throughout the LBP regulations of both EPA and HUD, and application of this definition is central to how LBP programs function. In the 2019 Final Rule, EPA discussed the Agency's need for more information to establish a statistically valid causal relationship between concentrations of lead at low levels in paint and dust lead loadings that cause lead exposure. Additionally, information is still needed to quantify the direct ingestion of paint through consumption of paint chips or through teething on painted surfaces. Finally, it is important to understand how capabilities among various LBP testing technologies would be affected under a possible revision to the definition, such as field portable X-ray fluorescence devices (XRFs), which are the primary tools for lead inspections and risk assessments. They are calibrated to the current definition of LBP, and so EPA needs to fully understand the repercussions such a revision to the definition may have on

these portable field technologies to ensure the technological feasibility.

On November 1 and 2, 2023, EPA and HUD held a virtual public workshop to hear stakeholder perspectives on specific topics related to detection of and exposure to potential lead hazards from existing residential LBP and to obtain additional information needed to address data gaps related to the definition of LBP that were outlined in the 2019 Final Rule. This virtual workshop was held over two days and gathered critical input on innovative methods to address LBP and reduce lead exposure across the United States.

In preparation for the LBP technical workshop, the Agency performed a literature review for sources relevant to the definition of LBP, consulted other Federal agencies, and refreshed materials that were developed for the 2019 rulemaking. While the data gaps did not change since the 2019 rule, they were refined to add further specificity, which allowed for a more targeted scope for both continued investigation and for the technical workshop held in November 2023. The more specific data gaps that EPA continues to investigate include empirical data on the relationship between low levels of lead in paint and dust-lead, as well as data on the common exposure scenarios that may inform this relationship (for example, dust-lead generation during a renovation scenario versus slowly deteriorating paint). Currently the available empirical data and modeling approaches for estimating the relationship between lead content in on-the-wall paint and lead in related environmental media, including dust, are applicable at or above the current LBP definition. EPA believes that to use the available empirical data and modeling approaches to estimate dust-lead loadings at low levels of lead in paint (particularly levels that are lower than the current definition by an order of magnitude or more) will introduce significant uncertainty to any estimations. Data and models applicable to lower levels of lead in paint are needed to develop an approach to estimate dust-lead from low levels of lead in paint, which will allow EPA to estimate incremental blood lead changes and associated health effect changes that may occur due to low levels of lead in paint. For the ingestion exposure pathway, EPA is exploring possible modeling solutions as well as seeking quantitative measures of ingestion and exposure (such as data on duration and frequency of consumption, and common paint chip characteristics). Studies on this subject have documented this behavior as a risk factor for exposure to



lead from LBP; however, the studies have not provided quantitative estimates of paint ingestion, which are needed to quantify exposure. Lastly, EPA continues to investigate constraints to the field measurement options for low levels of lead in paint. Different technologies have different limitations in accuracy, processing time, detection limits, accessibility, and destructiveness among other factors. These practical considerations are important to consider in understanding how a change in the definition may affect the ability of the regulated community to use certain technologies, potentially impacting the residents of target housing and occupants of COFs. On top of these data gaps and as outlined in the document *Definition of Lead-Based Paint Considerations* from May 2019 (Ref. 33), EPA is exploring the relationship between the two different units used in the current definition (milligram per square centimeter and percent by weight) to inform whether and, if so, how to develop a conversion between the two. The search for relevant information to develop the conversion and exploration of the uncertainty involved with such a conversion is underway.

The presenters at the workshop covered a wide range of topics. One of the most prominent discussions, covered by several presentations, was the potential and limitations of extending current technologies (particularly the XRF analyzer) to thresholds at or below the current definition, as well as the reliability of the analyzer's lead detection estimates in general. Also discussed extensively were the capabilities of other testing methods, strategies to use these methods alongside XRF testing, and the impact on test kits of lowering the definition of LBP. The challenge of characterizing the relationship between mass-per-mass and mass-per-surface area definitions of LBP was also examined, with one speaker presenting a regression analysis to derive an overall relationship between the two.

Other topics discussed during the workshop included trends in childhood lead exposure the capability of community outreach and involvement in assisting to address the LBP problem, and to some extent the relationship between lead in paint and dust-lead. On the latter point, however, the relationship between low levels of lead in paint and levels of lead in dust-lead was not examined in depth. Nor was the impact of paint condition, maintenance, age, and other factors. The ingestion pathway was also not examined. EPA and HUD continue to process the

information gathered and the status of the data gaps that remain. Also, EPA and HUD hope to gain additional insight from a wider audience via public comments on the workshop's docket, which was open until June 30, 2024.

Similar to the SLHS rulemaking, due to resource considerations and EPA's interest in acting as expeditiously as possible to revise the DLRL and DLAL and to hold the aforementioned LBP technical workshop, EPA will address the definition of lead-based paint in a separate rulemaking. EPA has listed this rulemaking on the definition of LBP in the Spring 2024 Unified Agenda of Regulatory and Deregulatory Actions under RIN 2070-AL11 as a long-term action, indicating the Agency's commitment to meet the statutory requirement of addressing the definition of LBP revision but that the Agency does not expect to propose this action in the 12 months following the agenda entry (Ref. 34).

Rulemakings such as those necessary for revisions to SLHS and the definition of LBP are complex, highly resource-intensive activities. A rulemaking's development generally entails scientific, economic, legal, and other technical analyses. For many rulemakings, this includes research and data gathering, which itself can sometimes necessitate exercising other information collection tools and following appropriate procedural requirements (e.g., Paperwork Reduction Act). To develop a rulemaking, EPA also often consults with governments and key stakeholders. Federal law may require such consultations based on anticipated regulatory impacts (e.g., the Unfunded Mandates Reform Act and the Regulatory Flexibility Act). Additionally, various executive orders may also require the Agency to engage in such consultations.

A rulemaking package often requires the development of complex supporting documents including an EA and a TSD, similar to those included alongside this reconsideration rulemaking (Refs. 10 and 12). A complete TSD includes several components that may require internal and external stakeholder dialogue and scientific peer review, including model and input data revisions, health and exposure metrics of interest, environmental fate and exposure mechanisms for either soil or the definition of LBP, characterization of uncertainties in modeling, and literature reviews (which have not been done for soil since before the 2001 LBP Rule was finalized). If existing models and analytical methods are insufficient to conduct the analysis to support the rulemaking, then they must be

developed as part of the technical work done in support of the rulemaking effort. Developing new models can take a considerable length of time and novel analyses may require peer-review, further extending the rulemaking timeline. The magnitude and effort of an SLHS TSD would mirror previous DLHS and DLCL TSDs (and the TSD for this rule); see the technical documents prepared in support of the 2019 Final Rule, the 2021 Final Rule, or this reconsideration rulemaking (Refs. 12, 35, and 36).

An EA includes various components such as a description of the need for Federal regulation; a profile of affected industries and populations; an overview of existing Federal, State and local regulations; a specification of the baseline state of the world and estimate of the number of events affected by the regulation; thorough analysis on the consequences of regulatory policy being considered and how regulated entities will respond; quantification and monetization of the regulation's costs, benefits, and net benefits; a description of unquantified or qualitative benefits; and an assessment of uncertainty surrounding estimates. An EA also includes various additional analyses related to statutory compliance and executive orders, including but not limited to small business impacts, unfunded State, local, or Tribal mandates, paperwork reduction, environmental justice, protection of children, federalism, coordination with Tribal governments, and energy effects. A rulemaking also involves developing **Federal Register** documents to present, generally, the preamble to and regulatory text of the proposed and final rule. Such published documents reflect the culmination of the development and review of the complex supporting documents and the resulting decision-making, which includes internal steps at the Agency to reach officewide agreement, as well as external to the Agency, such as holding potential public consultations, completing interagency review and convening a Small Business Advocacy Review Panel, as necessary. These processes can also take many months or years. The proposed and final rules also present statutory and executive order review analyses.

The current rulemaking on the DLRL and DLAL is one more step toward complete implementation of TSCA Title IV. Given the complications for the SLHS and the definition of LBP discussed earlier in this section, EPA does not believe that either the SLHS or the definition of LBP could have been reconsidered on this current

rulemaking's timeline. Instead, EPA will reconsider the SLHS and the definition of LBP as important next steps. Courts "have recognized that, under the 'pragmatic' one-step-at-a-time doctrine, 'agencies have great discretion to treat a problem partially' and 'regulat[e] in a piecemeal fashion.'" *Transportation Div. of the Int'l Ass'n of Sheet Metal, Air, Rail & Transportation Workers v. Fed. R.R. Admin.*, 10 F.4th 869, 875 (D.C. Cir. 2021) (quoting *Ctr. for Biological Diversity v. EPA*, 722 F.3d 401, 409–10 (D.C. Cir. 2013)); cf. *Massachusetts v. EPA*, 549 U.S. 497, 524 (2007) (recognizing that "[a]gencies, like legislatures, do not generally resolve massive problems in one fell regulatory swoop"). EPA intends to conduct rulemakings on the SLHS and the definition of LBP, as identified in the Spring 2024 Unified Agenda of Regulatory and Deregulatory Actions, to address the issues identified by the Ninth Circuit in its May 2021 opinion (Refs. 9, 32 and 34).

#### F. Public Comments Summary

The proposed rule provided a 60-day public comment period, which ended on October 2, 2023. EPA received a total of 21,309 comments in docket number EPA-HQ-OPPT-2023-0231. This included 393 unique comments that were submitted as well as the transcript from a public webinar that EPA held on the proposed rule on August 23, 2023, where numerous public comments were received verbally. The majority of the 21,309 comments were submitted as part of five mass mail campaigns (two that expressed support for the proposed rule and three that did not). One of the supportive mass mail campaigns accounted for roughly 20,723 or 97% of the total number of comments. Comments were received from private citizens, landlords, State/local governments (including State health departments), potentially affected lead-based paint businesses, lead laboratories, trade associations, non-governmental organizations and environmental and public health advocacy groups.

Numerous commenters supported EPA's proposed "greater than zero" approach to revising the DLHS (described as DLRL moving forward) codified as "any reportable level" based on their view that there is no safe level of lead exposure (e.g., two commenters pointed to a "voluminous body of recent research [that] documents unequivocally that no level of lead exposure is safe for a fetus or young child"). Public commenters also supported the proposed approach for a variety of related reasons, such as

making the public more aware of the risk dust-lead may pose, preventing more children from lead poisoning, and emphasizing the importance of cleaning. Commenters also noted their view that prevention is the best solution to lead exposure in children, and that due to neurological and cognitive development, children are particularly susceptible to these impacts. (Note that interventions that are implemented before there is evidence of a disease or injury are defined as primary preventions by CDC (Ref. 37)).

For the proposed approach there were several key concerns, raised predominately by lead-based paint professionals, laboratories and trade associations, that fall into several general categories: concerns over dust-lead source and that the DLRL would fall below background levels of dust-lead; laboratory concerns including that a laboratory's reportable level can vary considerably between establishments; impacts this DLRL would have on existing housing stock, particularly affordable housing; the cost of implementation; concerns over decoupling DLRL from DLAL; and possible liability issues and confusion within the public and regulated community due to leaving a hazard behind after an abatement is considered complete. For more information on the rationale of the final DLRL approach of "any reportable level" see Unit IV.B.

Multiple commenters, predominately advocacy organizations, supported EPA's proposed DLCL (described as DLAL moving forward) of 3  $\mu\text{g}/\text{ft}^2$ , 20  $\mu\text{g}/\text{ft}^2$ , and 25  $\mu\text{g}/\text{ft}^2$ , for floors, window sills and window troughs, respectively, in order to protect children from lead exposure. EPA also received numerous public comments opposing the reduction in the DLAL, and requests that the values remain at the current levels of 10  $\mu\text{g}/\text{ft}^2$ , 100  $\mu\text{g}/\text{ft}^2$ , and 400  $\mu\text{g}/\text{ft}^2$ , for floors, window sills and window troughs. A few commenters also supported the proposed alternative DLAL of 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$ , for floors, window sills and window troughs. The concerns public commenters highlighted were related to laboratory technology shifts, costs, turnaround times, laboratory capacity, and the practicability/achievability of the lower levels of 3  $\mu\text{g}/\text{ft}^2$ , 20  $\mu\text{g}/\text{ft}^2$ , and 25  $\mu\text{g}/\text{ft}^2$ .

EPA received several comments during the public comment period from a variety of organizations including industry, environmental and public health advocacy organizations, among others, requesting that EPA revise the terminology of the standards (specifically the terms of DLHS and

DLCL) in order to better communicate to the public their purpose and to reduce confusion. Another concern raised by numerous public commenters was the confusion created by the messaging of "greater than zero" (which was the terminology used to describe "any reportable level" in the proposed rule). Under this final rule the term "greater than zero" is being replaced with "any reportable level" in the preamble and within any implementation materials that accompany this final rule. For more information on the terminology changes see Unit IV.A.

In this preamble, EPA has responded to the major comments relevant to this final rule. In addition, the more comprehensive version of EPA's response to comments related to this final action, including comments not mentioned in this preamble, can be found in the Response to Comments document that accompanies this rulemaking (Ref. 38).

#### III. Technical Analyses

In its evaluation of options for reconsidering the DLRL and DLAL, EPA estimated children's BLL and associated IQ decrements expected to result from lead exposures with each option. These estimates provide the means to quantitatively compare risk posed to young children by exposure to the dust-lead loading levels analyzed. EPA also estimated BLL in adolescents and adults for the various dust-lead loading levels, and associated risk of ADHD diagnosis, cardiovascular mortality risk, and changes in low birthweight, to inform the benefits analysis accompanying this rule. The TSD (Ref. 12) and EA (Ref. 10) accompanying this rulemaking provide the complete analyses and associated estimates of expected impacts of the candidate DLRL and DLAL options on BLLs of exposed children, adolescents, and adults in target housing and associated changes in occurrence of adverse health impacts. See Unit IV. on the rationale for the revisions to DLRL and DLAL.

The TSD uses both mechanistic and empirical models to predict possible BLLs in children that reside in target housing and are exposed to homogenous candidate values for dust-lead levels (e.g., candidate options for the DLRL or DLAL); the TSD also probabilistically accounts for variation in children's BLLs due to other sources of lead exposure and differences in biological response to lead exposure. The first approach uses mechanistic modeling of lead exposure and uptake that takes into account age-specific ingestion rates, activity patterns, and background exposures. Specifically, the mechanistic

blood lead modeling for children in this rulemaking reflects the application of an extensively peer-reviewed model (the Stochastic Human Exposure and Dose Simulation—Integrated Exposure Uptake Biokinetic model coded in R, referred to as R-SHEDS-Pb) using updated data sources and tailored to the dust-lead target housing scenario, described in depth in appendix E of the TSD. The empirical approach used data that includes co-reported dust-lead and BLL measurements in the homes of children; these dust-lead and BLL data are used to develop an empirical relationship to estimate BLLs for each candidate dust-lead level. Estimates derived from the two approaches (mechanistic and empirical) are compared; and similarity between the results increased confidence in the estimates of the relationship between dust-lead loadings and BLL (Section 9.3 of the TSD, Ref. 12). The various components of the model and input parameters used for children in this rulemaking have been the subject of multiple Science Advisory Board Reviews, workshops and publications in the peer reviewed literature focused on dust-lead (Refs. 15, 39, 40, 41, 42, and 43).

The mechanistic blood lead modeling for adolescents and adults in this rulemaking was performed using an extensively peer-reviewed model (the All-Ages Lead Model, referred to as AALM) using updated data sources tailored to the dust-lead target housing scenario as was done for children using R-SHEDS-Pb (See section 4 and appendix F of the TSD). The TSD uses AALM version 3.0 to predict possible BLLs in adolescents and adults that reside in target housing and are exposed to dust-lead loadings at the candidate DLRL and DLAL. This model takes into account age-specific ingestion rates and background exposures (Section 4.2.1 of the TSD) (Ref. 12). The various components of the AALM version 2.0 model and input parameters have been the subject of a Science Advisory Board review (Ref. 44) and the AALM version 3.0 model been used to support recent EPA guidance and rulemakings (Ref. 45 and 46).

Detailed discussion of the limitations and uncertainties in blood lead modeling at the low dust-lead exposures and associated BLLs considered for this rulemaking can be found in Sections 13.3.1 and 13.3.2 of the TSD (Ref. 12). Integrated Exposure Uptake Biokinetic Model for Lead in Children (IEUBK) version 2.0, as a standalone biokinetic model, was evaluated for performance in groups of children for which the geometric mean BLL is as low as 2.3  $\mu\text{g}/\text{dL}$

(Ref. 47). Mean estimated BLLs for groups of children at some of the lowest levels of dust lead exposure modeled for this rulemaking were lower than this value (between 0.81 and 1.12  $\mu\text{g}/\text{dL}$  depending upon age) and are outside the range for which the underlying biokinetic model (IEUBK) has been evaluated. In order to address this lack of model evaluation at BLLs of interest, EPA conducted an evaluation of the R-SHEDS-Pb model used in this analysis with a dataset for which the geometric mean BLL in children aged 1 to 2 years old is 1.09  $\mu\text{g}/\text{dL}$ . This evaluation found BLL estimates for 1- to 2-year-old children from the R-SHEDS-Pb model agreed well with the reference dataset at low percentiles, at the median, and at the 95th percentile. See table 13-2 and appendix D in the TSD (Ref. 12). AALM version 3.0 was validated against a panel of datasets including pharmacokinetic data from dosing studies in adults (Ref. 48), biomonitoring data including longitudinal studies of lead workers (Refs. 49, 50), and biokinetic studies in infants with estimated lead intakes (Refs. 51, 52). Additionally, AALM version 3.0 was evaluated at relatively low exposures and associated BLLs (~1  $\mu\text{g}/\text{dL}$ ) against the IEUBK predictions for children at birth until age 7 and the predictions were found to compare well, with a 5% discrepancy (0.07  $\mu\text{g}/\text{dL}$ ) between the two models at age 2 for a 10  $\mu\text{g}/\text{day}$  continuous lead dose (See Figure 13-1 in the TSD).

In contrast to the TSD, which estimates the health risk and exposure associated with dust-lead loading candidates for a hypothetical population of children in target housing without consideration to how many children are actually affected by the rule, the EA estimates benefits that accrue to only the subpopulation that would be impacted by the final rule's revisions. Rather than assuming all households living in target housing are impacted by the regulatory change, the EA instead estimates benefits solely for instances when dust-lead levels would be tested. These instances of dust wipe testing are henceforth referred to as "triggering events." For the subpopulation of individuals who are affected by these events, the EA estimates quantified benefits from avoided lead-associated IQ decrements, avoided cases of ADHD or cardiovascular mortality, and changes in birthweight. The EA uses real world data to characterize: (1) variability in the housing stock that is affected; (2) how surface-by-surface dust-lead loadings change due to the DLRL/DLAL; (3) the number of individuals living in affected

housing units; and (4) resultant changes in BLLs and IQ decrement, ADHD, low birthweight, and cardiovascular mortality risk that are expected. In modeling the relationships between dust-lead loadings and BLL/IQ, the EA presents results based on both the empirical and mechanistic approaches laid out in the TSD. EPA considered several methods to quantitatively represent the relationship between BLL and IQ for BLLs below the lowest lifetime average BLL (1.47  $\mu\text{g}/\text{dL}$ ) in the set of epidemiologic studies which the BLL-IQ concentration-response equations were based upon, and a range of IQ decrement estimates based on the methods considered are presented in the TSD and EA (see TSD section 6 and EA Section 6.4). The IQ decrement estimates presented in Unit IV, and in Section 12 of the TSD were derived using a linearization method, which resulted in the highest estimates of IQ decrements.

Both the TSD and the EA present estimated changes in BLL and associated changes in health effects (IQ decrement, ADHD, low birthweight, and cardiovascular mortality risk). However, these estimates represent populations of exposed individuals characterized in differing ways. The TSD presents the expected response for a hypothetical dust-lead exposure, accounting for varying sources of background exposure (e.g., food, soil, water) and biological variability. The EA estimates expected responses to triggering events, recognizing that exposures at the higher end of the distribution of hypothetical conditions in the TSD are not realized in all target residences because dust-lead levels across target housing are generally lower than the current hazard standards and clearance levels (10  $\mu\text{g}/\text{ft}^2$  and 100  $\mu\text{g}/\text{ft}^2$  on floors and window sills respectively) (Ref. 53) and existing abatements/interim controls typically overshoot the current clearance levels considerably (Ref. 54). Thus, the distributions of BLLs and health effects estimated in the TSD represent the impact of individuals' exposures to hypothetical dust-lead levels while the EA estimates distributions of BLLs and health effects across individuals living in housing that is directly impacted by this rule. The analyses that EPA developed and presented for young children in the TSD and EA for this rule were specifically designed to estimate BLLs and associated risk of effects on IQ that might accrue to the population of interest (i.e., children living in pre-1978 housing). EPA notes that its different program offices estimate exposures for different populations, different media,

and under different statutory requirements and thus different models or parameters may be a better fit for their purposes. Accordingly, the approach and modeling parameters chosen for this rulemaking should not necessarily be construed as appropriate for, or consistent with, those of other EPA programs or those of other Federal agencies.

Public comments were received on the TSD and EA accompanying the proposed rule. EPA's responses are included in Sections 9 and 10 of the Response to Comments filed under docket number EPA-HQ-OPPT-2023-0231.

#### IV. Final Rule

As explained in Unit II.E., the 2021 Court Opinion of the U.S. Court of Appeals for the Ninth Circuit held that EPA must reconsider the DLHS in conjunction with the DLCL (described by EPA as DLRL and DLAL moving forward) (Ref. 9). EPA carefully considered all public comments related to the proposed rule and is finalizing a nomenclature change from the terminology of DLHS and DLCL, to the dust-lead reportable level (abbreviated as DLRL) and the dust-lead action level (abbreviated DLAL), as well as revisions to lower both standards. In this final rule, EPA is revising the DLHS from 10  $\mu\text{g}/\text{ft}^2$  and 100  $\mu\text{g}/\text{ft}^2$  for floors and window sills to a non-static DLRL represented by any reportable level of dust-lead as analyzed by an NLLAP-recognized laboratory. Lowering the DLRL (independent of the DLAL revisions) provides the regulatory benefit of additional disclosure of LBP hazards in target housing and COFs. This results in an estimated increase in individuals who are aware of the presence of dust-lead and the various actions that can be taken to minimize dust-lead hazards and take actions to protect themselves from exposure (even if LBP is not present). See Unit IV.B. for additional information describing the final DLRL of "any reportable level."

EPA is also finalizing revisions to the DLCL from 10  $\mu\text{g}/\text{ft}^2$ , 100  $\mu\text{g}/\text{ft}^2$  and 400  $\mu\text{g}/\text{ft}^2$  for floors, window sills, and troughs to a DLAL of 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$ , which are the current DLCL in New York City (NYC). See Unit IV.C. for additional information describing the final DLAL.

##### A. Nomenclature Changes

EPA received several comments during the public comment period from a variety of organizations including industry, environmental and public health advocacy organizations, a local health department, the Attorneys

General of several States and the District of Columbia, and a lead-based paint professional, suggesting EPA revise the terminology of DLHS and DLCL in order to better communicate to the public the purpose of the standards and to reduce confusion. Commenters highlighted that removing the use of "hazard" would be beneficial since it could imply that immediate action is needed or create confusion within the public when no action is recommended. Commenters also emphasized that changing the use of "clearance" could avoid any misconception that after an abatement no hazards remain. One commenter even noted that because this rule is shifting how the standards have worked together historically (*i.e.*, decoupling the hazard standards and clearance levels for floors and sills), it may be helpful to both the public and the regulated community to make this shift even more transparent with a terminology change. Another commenter noted that EPA should consider how these terms are used in other Federal and State regulations.

EPA received recommendations for new terminology for both standards, including dust-lead hazard level, disclosure level, lead dust disclosure level, contamination level, or lead-contaminated dust goal for the DLHS and action level or dust-lead action level for the DLCL, among other suggestions. EPA is finalizing a nomenclature change from the term DLHS to dust-lead reportable level (abbreviated DLRL) and from the term DLCL to dust-lead action level (abbreviated DLAL). The new term DLAL received the most support by public commenters, with the largest number of requests, whereas EPA believes DLRL captures the essence of the suggestion from the public commenters but avoids any confusion with the already well-established Disclosure Rule or disclosure program.

While this exact terminology was not in the proposed rulemaking, EPA recognizes the value of these changes and agrees with commenters that the new terminology more clearly communicates the intention of the standards to the public and the regulated community. EPA believes this updated nomenclature aligns better and more intuitively with the operational function of the amendments EPA had proposed and is finalizing in this action. For example, the new terminology makes it clear that if a dust-lead loading falls below the DLAL but above the DLRL, that dust-lead is still present in the environment, but that the levels are below those prioritized for action. To implement this nomenclature change,

EPA is adding a definition of "action levels" in 40 CFR 745.223 to replace "clearance levels" and making other minor, conforming amendments in phrasing of the regulations. The term DLAL also emphasizes its new role, as the trigger for the recommendation for action due to the changes to the definition of abatement for dust-lead hazards (see Unit IV.E. for more information on the revisions to the definition of abatement). Ultimately, when the regulated community clears a project after an abatement, it would be to below the action levels. EPA intends any continuing use of the "clearance" term in the abatement context to describe such efforts (*i.e.*, achieving loadings below the action level). EPA also appreciates that the reportable terminology in particular aligns with the regulatory definition that is being finalized of "any reportable level." Note that within EPA's regulatory landscape, dust-lead levels that are at or above the DLRL are still considered a LBP hazard, specifically a dust-lead hazard. EPA believes that messaging to the public and regulated community should revolve around explaining that any dust-lead levels at or above DLRL are above the level at which the LBP community must report a hazard on a risk assessment report, but that EPA recommends action only when levels are above the DLAL. Language around a reportable level should still clearly communicate that a dust-lead hazard is still present.

Another concern raised by numerous public commenters was the confusion caused by the messaging of "greater than zero" (which was the terminology used to describe "any reportable level" in the proposed rule). In this final rule the terminology "greater than zero" is being replaced with "any reportable level" in the preamble and within any implementation materials that accompany this final rule. EPA agrees with the public that the concept of GTZ is confusing as it implies that if one has dust-lead loadings below any reportable level then there is zero or no dust-lead present. EPA wants to avoid this misconception and will refer to what was previously "greater than zero" as the "any reportable level" approach to avoid any further confusion.

A more comprehensive version of EPA's response on these communication and nomenclature comments can be found in Section 5 of the Response to Comments document that accompanies this final rule (Ref. 38).

##### B. Dust-Lead Reportable Level Approach

In the 2001 LBP Hazards Rule EPA discussed the dilemma the Agency

faced when establishing a dust-lead hazard standard, especially the challenges associated with choosing “which [BLLs] are truly hazardous” and how to interpret the statutory criteria from TSCA section 401 (*i.e.*, “would result in adverse human health effects” (15 U.S.C. 2681(10)) given the uncertainties that existed (Ref. 20). As a result, historically EPA took a pragmatic approach to setting the DLHS (described moving forward as the DLRL) and focused on the potential for risk reduction, cost-benefit balancing and other relevant factors, establishing the standards at 40  $\mu\text{g}/\text{ft}^2$  and 250  $\mu\text{g}/\text{ft}^2$  for floors and sills, respectively. The Agency did not establish a DLHS (described moving forward as the DLRL) for troughs as it found that window sills and troughs were highly correlated and concluded that testing both surfaces would not improve a risk assessor’s ability to characterize risk.

Building off the precedent established in 2001, the 2019 Final Rule “evaluated the relationship between dust-lead levels and children’s health, and . . . the application of those standards in lead risk reduction programs.” In addition, when establishing the 2019 standards, EPA also assessed laboratory capabilities, resources for addressing LBP hazards and consistency across the Federal government (Ref. 2). At that time EPA reasonably believed it had the discretion to set the DLHS (described as DLRL moving forward) based on both risk reduction and whether the standards were achievable, especially given the existing programs in place to reduce LBP hazards and revised the standards to 10  $\mu\text{g}/\text{ft}^2$  and 100  $\mu\text{g}/\text{ft}^2$  for floors and sills, respectively (Ref. 2).

Ultimately, the 2021 Court Opinion, which is discussed in Unit II.E., led EPA to undertake a major shift in its approach to residential LBP hazard control and the LBP activities program because the Court found that EPA did not have the authority, when setting the DLHS, to consider non-health factors (*e.g.*, laboratory capabilities, resources for addressing LBP hazards, consistency across the Federal government, or cost-benefit balancing). Consistent with the 2021 Court Opinion, EPA proposed revisions to the DLHS (described as DLRL moving forward) in August 2023 and is finalizing those changes in this rulemaking based only on health considerations (Ref. 55). EPA intends health-only considerations in this context to refer to the effects of lead on health after exposure to dust-lead loadings, considering the statutory definition’s focus on “any condition that causes exposure to lead from lead-contaminated dust . . . that would

result in adverse human health effects” (15 U.S.C. 2681(10)). These health-only considerations do not include broader public health concerns (such as health trade-offs and policy impacts on Federally assisted housing). See Unit IV.B.1.d. for more discussion on public health considerations and public feedback.

#### 1. Rationale for Selecting the Final DLRL

EPA is finalizing a non-static DLRL that is any reportable level of dust-lead for floors and window sills as analyzed by an NLLAP-recognized laboratory. Setting a DLRL for floors and window sills only is consistent with current practice and regulatory history, which has not included a hazard standard or reportable level specifically for troughs.

Given the statutory language in TSCA section 401 that defines what a “LBP hazard” is (*i.e.*, as conditions of LBP and lead-contaminated dust and soil that “would result in adverse human health effects”), EPA believes that it cannot set the DLRL at zero because zero exposure to dust-lead loadings would not cause adverse health effects. EPA is not attempting to establish a safe level of dust-lead as, at this time, no BLL threshold at which no adverse effects occur in children has been identified (Ref. 5, 56), and EPA did not identify a level of dust-lead exposure at which there is no effect on BLL. The standard being established—“any reportable level”—is an appropriate non-zero DLRL and is based on dust-lead related health factors only. It was developed in accordance with the 2021 Court Opinion by taking into consideration the exposure modeling data outlined in TSD and the current state of the science on the health effects of lead exposure. The final DLRL approach represents a shift in the LBP activities program to a more inclusive and protective standard, compared with the 2019 levels. The DLRL approach will be inclusive of any reportable level of dust-lead and will not distinguish based on health risk posed.

EPA received public comments on the “any reportable level” approach to the DLRL, which are discussed in more depth in Unit IV.B.1.d. Additionally, two other approaches were also considered for revising the DLRL, including a numeric standard based entirely on the modeling data laid out in the TSD (summarized in TSD table 2–2), and an approach that would use the background dust-lead levels of housing built in or after 1978 (called post-1977 background); both are briefly discussed in Unit IV.B.2.

a. DLRL and the LQSR Action Level

The DLRL is being finalized as any reportable level as analyzed by an NLLAP-accredited laboratory. “Reportable level” had not previously been defined in EPA’s regulations at 40 CFR part 745 or EPA’s current guidance for NLLAP-recognized laboratories, titled Laboratory Quality Standards for Recognition (or LQSR 4.0). EPA is finalizing the definition of “reportable level” as proposed to mean the lowest analyte concentration (or amount) that does not contain a “less than” qualifier and that is reported with confidence for a specific method by an NLLAP-recognized laboratory. In other words, EPA interprets “any reportable level” of dust-lead to be any level greater than or equal to the lowest value a laboratory can reliably report to a client or the regulated community, and a report of zero concentration is not permitted under the LQSR. For target housing or a COF to achieve no dust-lead hazard, an NLLAP-recognized laboratory would need to provide a result that was less than (<) their reporting limit. Any numeric value that is above an NLLAP-recognized laboratory’s reporting limit would be considered a dust-lead hazard and would need to be disclosed as such, for example, on a risk assessment report prepared by a certified risk assessor.

In terms of the standards being finalized in this rule and their impact on laboratories, given that the DLRL is a non-static value, the DLAL, rather than the DLRL, would be considered the “action level” as described in the LQSR 4.0, as well as for when a risk assessor would recommend an abatement (see Unit IV.E. for more information on EPA’s revisions to the definition of abatement). Under the LQSR 4.0, NLLAP-recognized laboratories that analyze dust wipe samples for lead must show that they can achieve a quantitation limit “equal to or less than . . . 80% of the lowest action level [*i.e.*, regulatory limit] for dust wipe samples”; this is a shift from LQSR 3.0 where it was 50% (Refs. 26 and 57). The quantitation limit must also be “at least 1.6 times but no greater than 10 times the method detection limit” (Ref. 26). Thus, EPA’s minimum standards for testing will rely on the numerical DLAL of 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$  for floors, window sills and window troughs to establish the quantitation limit that any laboratory (that wishes to maintain or obtain NLLAP recognition) must be able to demonstrate (Ref. 26). The DLRL of “any reportable level” is considered distinct from the DLAL and not to affect the quantitation limit under the LQSR. Based on these minimum

standards for NLLAP-recognized laboratories and previous laboratory stakeholder input, EPA expects that the lowest reportable level will be equivalent to the laboratory's quantitation limit. Note that only laboratories that are NLLAP accredited can perform dust-wipe testing for lead under the existing regulations at 40 CFR part 745.

EPA received public comments raising concerns that the DLRL is non-static and would change among laboratories depending given technology sensitivity, conditions etc. Commenters, including an NLLAP accrediting body, requested that the area wiped, instrumentation and/or method detection limit be defined to provide more consistency. EPA fully acknowledges that the reportable level under the final DLRL will potentially vary from laboratory to laboratory due to different capabilities. EPA believes establishing a DLRL based on the capabilities of individual laboratories is a strength of the final DLRL because it allows room for improvement and the possibility of getting as low as reliably reportable depending on the sensitivity of the technology—in turn allowing the regulated community to be able to disclose lower levels. This will also limit the need for future revisions to the DLRL, unless there is a compelling reason to, such as a threshold for adverse effects being identified. Note that the trigger for the recommendation of work has been shifted to the DLAL (rather than the DLHS, described as DLRL moving forward, as has been the case historically). See Unit IV.F. for more information on the change to the definition of abatement.

While EPA understands the request for some form of minimum laboratory requirements, EPA disfavors requiring laboratories to use a specific type of technology for analysis, as that will limit some laboratories who have or would like to have more sensitive capabilities. Note that EPA does include standards that act as an upper bound within EPA's LQSR 4.0 as discussed previously (e.g., every laboratory must have a quantitation limit equal to or less than 80% of the action level for each surface of interest, such as floors, window sills and troughs), among other standards, which effectively function to promote consistency between laboratories. For dust-wipe testing of floors, EPA does recommend that LBP professionals wipe at least two square feet as needed to help the NLLAP-recognized laboratory achieve the LQSR's standard for the quantitation limit. Similarly, HUD already recommends using at least two square

feet for LBP professionals conducting dust-lead testing of floors (in circumstances where needed for laboratory capabilities) for HUD's current dust-lead action levels for its Lead Hazard Reduction grant programs (Ref. 58). EPA also recommends that LBP professionals document the sample size in order to inform the NLLAP-recognized laboratory either through already established practices or the Chain of Custody form. EPA does note that there may be laboratories with more sensitive technology that can meet the LQSR minimum standards without testing two square feet on floors.

Overall EPA disagrees that the types of specifications requested by some commenters are required for the DLRL to work as intended. EPA recommends, if there are concerns, that the regulated community work directly with laboratories. Understanding the laboratory's reporting limits and attaining consistent levels across larger projects is possible for the regulated community through contracts (i.e., arrangements incorporated into the project to use either the same laboratory or those with the same reporting values and technology), and through understanding various laboratories' reporting limits. EPA acknowledges the potential challenges of inconsistency that may arise from the final DLRL, but EPA does not believe this can be considered when setting the DLRL or that it outweighs the benefit of additional disclosures to the public that will result from this approach.

#### b. No Threshold Has Been Identified

According to TSCA Title IV, EPA should identify the level of dust-lead exposure that “would result in adverse human health effects” as a type of LBP hazard (15 U.S.C. 2681(10)). Any reportable level of lead in dust is a more protective approach compared with the current regulatory landscape. Any reportable level of lead in dust also acknowledges the current state of scientific evidence. Based on the epidemiological evidence available, EPA observed in the 2013 and 2024 Integrated Science Assessments that there is no evidence of a threshold below which there are no harmful effects on cognition from lead exposure (Refs. 5 and 56). Depending on the exposure and other factors, effects on IQ associated with childhood lead exposure may persist into adolescence and adulthood (Refs. 5 and 6). EPA also favored such an approach for the DLRL under TSCA Title IV in part because a more protective approach to DLRL, such as any reportable level, aligns with the Congressional purpose for disclosure

elsewhere under Title X (notably, as implemented in the Lead Disclosure Rule) and because Congress used the word “hazard” in the “lead-based paint hazard” term, even though the definition uses more risk-like language by introducing consideration of the level of *exposure* that would result in adverse health effects.

The EPA 2024 Lead ISA stated that effects of lead exposure on children's cognition were best substantiated to occur in study populations with mean BLLs between 2 and 8 µg/dL and noted that, extending the evidence described in the 2013 Lead ISA, associations with effects on cognition were also observed in groups with mean BLLs below 2 µg/dL (though not all studies with mean BLL below 2 µg/dL reported positive associations between BLL and IQ decrements). Further, despite there being some uncertainty in epidemiological studies on lead exposure and BLLs (especially for older children and adults), the 2024 ISA stated that “the collective body of epidemiologic studies provides no evidence of a threshold for cognitive effects in children across the range of BLLs examined.” This body of evidence includes studies which found effects on children's cognition in some groups of children with prenatal and early childhood blood lead or concurrent blood lead in the range of <1 to 10 µg/dL. (Ref. 5). This statement was based on a synthesis of the extensive literature examining the relationship between BLL and cognitive function, including a landmark pooled cohort study by Lanphear et al. (Refs. 59 and 60), the results of which have been confirmed by repeated re-analysis (Refs. 61 and 62). The 2024 ISA's statement on a threshold for cognitive function decrements in children is consistent with the 2013 ISA (Refs. 5 and 56), despite the evaluation of over 10 years of additional scientific evidence. The Federal Lead Action Plan, developed by the President's Task Force on Environmental Health Risks and Safety Risks to Children, which is comprised of 17 Federal departments and offices, states that “no safe blood lead level in children has been identified.” (Ref. 7). Further, the analysis that supports this rule examined the 95th percentile of children's modeled BLLs and the associated IQ losses (Ref. 12), which for all options considered is at or above the group mean BLLs for which IQ loss is observed in the literature examined in the ISA (Ref. 5 and 12).

EPA understands the limitations of the epidemiological analyses of BLL and children's IQ and the heterogeneity observed in scientific studies evaluating

groups with mean BLLs below 2 µg/dL, and acknowledges that a threshold could exist that is currently unidentified; but ultimately in its assessment of the available scientific research findings in the 2024 ISA for lead, the Agency observed that “the collective body of epidemiologic studies provides no evidence of a threshold for cognitive effects in children across the range of BLLs examined.” This body of evidence includes studies which found effects on children’s cognition in some groups of children with prenatal and early childhood blood lead or concurrent blood lead in the range of <1 to 10 µg/dL (Ref. 5). EPA continues to acknowledge the aforementioned uncertainties and notes that science is constantly evolving and, as additional data become available (e.g., exposure and health impacts), then EPA may undertake a new rulemaking to propose changing the standards in the future to reflect any new data or information about an acceptable threshold of effects on cognition in children.

Additionally, the CDC acknowledges that “[s]cientific evidence suggests that there is no known safe [BLL], because even small amounts of lead can be harmful to a child’s developing brain” (Ref. 63). When the original DLHS and DLCL were proposed and finalized in 1998 and 2001 the CDC had set a “level of concern” for children’s BLL at ≥10 µg/dL (Refs. 64 and 65). In 1991, when that level was established as a level that should prompt public health actions, the CDC concurrently recognized that a BLL of 10 µg/dL did not define a threshold for the harmful effects of lead (Ref. 64). One goal for the level was that “all lead poisoning prevention activities should be to reduce children’s BLLs below 10 µg/dL” (Ref. 64). Accordingly, in the 1998 proposal EPA stated that, “[a]lthough the scientific community has not been able to identify a threshold of exposure below which adverse health effects do not occur, the evidence of health effects below 10 µg/dL is not sufficiently strong to warrant concern” (Ref. 66). In the final rule in 2001, EPA determined the lowest candidate DLHS by using a 1 to 5% probability of an individual child developing a BLL of 10 µg/dL (Ref. 20).

In the 2019 Final Rule, EPA recognized that “[a]lthough health risks to young children decrease with decreasing dust-lead levels, no non-zero lead level, including background levels, can be shown to eliminate health risk entirely.” At that time, EPA also recognized the CDC’s 2012 decision to discontinue its use of a 10 µg/dL blood lead “level of concern” and to introduce a population-based blood lead reference

value (BLRV) to identify children exposed to more lead than most other children in the United States (Ref. 67). The BLRV represents the 97.5th percentile of the U.S. population BLL distribution in children ages 1 to 5 from the National Health and Nutrition Examination Surveys (NHANES). This means that by definition 2.5 percent of children ages 1 to 5 in the NHANES survey have a BLL greater than the BLRV. This metric was established in part because “no safe blood lead level in children ha[d] been identified,” (Ref. 67). In 2012 the BLRV was 5 µg/dL, based on young children’s BLL in the 2007–2010 NHANES, and in 2021 it was lowered to 3.5 µg/dL based on the children’s lower BLLs observed in the 2015–2018 NHANES (Ref. 65). The BLRV is not based on a health endpoint, but rather is a statistical point in the distribution of children’s BLLs in the United States used as a policy tool to identify children who have higher levels of lead in their blood compared with most children.

Establishing a health-based only standard for DLRL, as well as DLAL that considers other factors (i.e., taking into account reliability, effectiveness, and safety), is similar to EPA’s implementation of some other programs governing lead exposure. For example, under the Safe Drinking Water Act (SDWA), EPA is required to establish a maximum contaminant level goal (MCLG) at a level at which, in the Administrator’s judgment, “no known or anticipated adverse effects on the health of persons occur and which allows an adequate margin of safety.” SDWA section 1412(b)(4). EPA established a health based MCLG of zero for lead in drinking water. National Primary Drinking Water Regulations include either an enforceable maximum contaminant level (MCL) or treatment technique requirements, EPA can set a treatment technique requirement in lieu of an MCL if “it is not economically or technologically feasible to ascertain the level of the contaminant.” SDWA section 1412(b)(7)(A). In addition to the MCLG, EPA established treatment technique requirements for lead taking into account several factors (56 FR 26460). Unlike many other drinking water contaminants, lead is generally not present in source water but enters drinking water from corrosion of plumbing materials that contain lead including lead service lines and premise plumbing. Occurrence of lead in drinking water is variable within a system and across systems due to factors such as the amount of lead in any individual site’s plumbing, physical and

chemical characteristics of the water, and consumer use patterns. Additionally, sources of lead can be beyond the control of the water system to replace, such as premise plumbing. Water systems can adjust or add treatment to control the corrosivity of the water to reduce lead leaching from lead pipes and premise plumbing. EPA is required to consider technical feasibility and costs when establishing the treatment technique. Under EPA’s treatment technique rule for lead in drinking water, EPA established a non-health-based action level that, if exceeded, requires water systems to take actions to reduce elevated levels of lead in drinking water.

### c. Modeling Discussion and Results

The Technical Support Document estimated BLL and IQ decrements (among other health endpoints, see Unit III. for more information) in children exposed to hypothetical dust-lead loading values (i.e., it evaluated the estimated impacts of exact dust-lead exposures). These estimates for BLLs of children exposed to the DLRL dust-lead loadings were evaluated for children at each age up to age six, including age two (generally, age two is the age of greatest modeled exposure), and lead-related reduction in IQ at age six was estimated from the lifetime average BLL (average of BLLs across the period prior to age six). This approach is consistent with the study from which the BLL concentration-IQ response function was drawn. This study related IQ quantified at about six years of age to each child’s lifetime average BLLs (based on blood lead measurements taken from six months up to age of the IQ test (Refs. 59 and 60). In the following discussion towards the end of this section, both the model results for two-year BLL and the estimates of IQ change at six years are represented, and EPA refers to them as the results for “young children” for brevity.

Ultimately, the results from the TSD show that as dust-lead levels in housing decrease below the current standard (i.e., 10 µg/ft<sup>2</sup> and 100 µg/ft<sup>2</sup> for floors and window sills), so do children’s BLL and IQ decrement from lead exposure, which supports the final approach of any reportable level and the concept of disclosure. These values are estimated to help EPA analyze the impacts of this rulemaking on the health (i.e., IQ decrement, which is a measure of cognitive function) and dust-lead exposure of the population in question (i.e., young children in pre-1978 buildings and COFs), as well as to inform a costs and benefits analysis in the EA. Two other approaches to



revising the DLHS (described as DLRL moving forward) and their dust-lead loading candidates were considered and were both discussed in depth in the 2023 Proposed Rule and evaluated in the TSD. See Unit IV.B.2. for more information.

When choosing health or exposure metrics to evaluate the DLRL approaches based on the TSD results, the Agency considered three factors: (1) the CDC’s BLRV (which is a not a health-based end point but rather is a statistical measure of relative exposure); (2) responsiveness to feedback received previously from various scientific bodies; and (3) Agency precedent. The TSD considers BLL and IQ changes in two ways: relative to aggregate/total lead exposure (which includes exposure

from other media: soil, diet, water, and air in addition to dust) and relative to incremental/dust-only lead exposure (Ref. 12). For example, in 2001 the lowest DLHS candidate was identified by using a 1 to 5% probability of an individual child developing a BLL of 10 µg/dL (Ref. 20), which represented total BLL, inclusive of exposure to lead through other media.

In the TSD analyses for this final rule, EPA compared BLL in young children, with an emphasis on 2-year-old children because this is the age of greatest modeled exposure, from aggregate or total exposure from all media (i.e., dust, soil, diet, water, and air) to the CDC BLRV of 3.5 µg/dL. This BLL value is not health based and does not represent a toxicity threshold (and is subject to

change over time, since the CDC BLRV changes as the BLLs in the population change); however, CDC explains that it can still be used as a tool to “(1) help determine whether medical or environmental follow-up actions should be initiated for an individual child and (2) prioritize communities with the most need for primary prevention of exposure and evaluate the effectiveness of prevention efforts” (Ref. 65). Importantly, even at zero dust-lead (which again is not a candidate of interest but is being used for comparison and informational purposes only), children are estimated to have a 5.7% probability of exceeding the BLRV given the impact of background lead exposures from other media (e.g., soil, diet, water, and air) (Ref. 12).

TABLE 1—PERCENT EXCEEDANCE VALUES FOR ZERO DUST-LEAD, AGE: 2-YEAR-OLD (30 MONTHS)

Approach	Floor (µg/ft <sup>2</sup> )	Sill (µg/ft <sup>2</sup> )	Probability			
			Total BLL >3.5 µg/dL (%)	Total BLL >5 µg/dL (%)	Dust only BLL >1 µg/dL (%)	Dust only BLL >2.5 µg/dL (%)
Zero <sup>1</sup>	0	0	5.7	2.2	0.0	0.0

<sup>1</sup>The exceedance values for zero dust-lead are provided for comparison with the DLRL candidates; it is not a candidate value and is for informational purposes only.

In 2011, EPA’s Scientific Advisory Board (SAB) and in 2012 the Children’s Health Protection Advisory Committee (CHPAC) both expressed support for an incremental BLL approach that focuses on dust-lead exposure only. In 2011 SAB reviewed EPA’s *Approach for Developing Lead Dust Hazard Standards for Residences (November 2010 Draft)* and *Approach for Developing Lead Dust Hazard Standards for Public and Commercial Buildings (November 2010 Draft)* and provided feedback that there are several key advantages to the incremental approach (e.g., reducing uncertainty from estimating exposures from other

media) and provided that a change in BLL “of 1 or 2 µg/dL at the 90th percentile” could be an example of a target risk level. Similarly, CHPAC expressed support for using an incremental approach and preferred levels such that an adverse change in BLL is “no greater than 1 or 2.5 µg/dL” (Ref. 68).

As a result, EPA also estimated what dust-lead levels (considering only the dust-lead component in the multi-media exposure modeling) would result in incremental BLL change ranging between 1 and 2.5 µg/dL based on exposure assumptions described in the TSD (Ref. 12).

For this reconsideration rulemaking the Agency considered the estimated total/aggregate IQ change (i.e., the estimated total or aggregate IQ change from modeled BLL including all modeled sources of lead exposure) at age six and compared it to a threshold of 1 to 2 points. IQ changes due to background exposures to lead in other media (e.g., soil, diet, water, and air) are estimated to already have a 48.7% probability to exceed 2 points for children in target housing without also considering additional dust-lead exposure (Ref. 12).

TABLE 2—PERCENT EXCEEDANCE VALUES FOR ZERO DUST-LEAD, AGE: 6-YEAR-OLD (72 MONTHS)

Approach	Floor (µg/ft <sup>2</sup> )	Sill (µg/ft <sup>2</sup> )	Probability			
			Total IQ decrement >1pt (%)	Total IQ decrement >2pt (%)	Dust only IQ decrement >1pt (%)	Dust only IQ decrement >2pt (%)
Zero <sup>1</sup>	0	0	88.9	48.7	0.0	0.0

<sup>1</sup>The exceedance values for zero dust-lead are provided for comparison with the DLRL candidates; it is not a candidate value and is for informational purposes only.

In addition to total/aggregate IQ change, EPA determined BLLs that were estimated to result in an incremental loss of 1 to 2 IQ points from exposure to only dust-lead (i.e., exclusive of lead in other media such as soil, diet, water, and air). This metric is explicitly health-

based, in that it is an estimated health effect. There is EPA precedence for using the metric of an incremental change in IQ with a range of values of 1 to 2 points to inform national standards decisions. This includes the 2008 and 2016 decisions on the primary

national ambient air quality standard (NAAQS) for lead, which was informed by consideration of air-related IQ decrement estimates based on an evidence-based framework, with a focus on the at-risk subpopulation of children living near sources who are likely to be

most highly exposed to air-related lead (Ref. 69). In their review of various technical documents supporting both the 2008 and 2016 NAAQS reviews, the Clean Air Scientific Advisory Committee (CASAC) supported using an incremental 1-to-2-point IQ decrement approach for consideration during development of the air standard (Refs. 69 and 70).

When modeling the “any reportable level” approach in the TSD to compare to these health and exposure metrics of interest (as discussed previously), EPA used estimated dust-lead loadings ranging from 0.8 to 2.0 µg/ft<sup>2</sup> for floors and 0.8 to 4.3 µg/ft<sup>2</sup> for window sills. These are estimated values for an any reportable level DLRL paired with both the proposed DLAL (3 µg/ft<sup>2</sup>, 20 µg/ft<sup>2</sup>, and 25 µg/ft<sup>2</sup> for floors, window sills, and window troughs respectively) and the proposed alternative DLAL (5 µg/ft<sup>2</sup>, 40 µg/ft<sup>2</sup>, and 100 µg/ft<sup>2</sup> for floors, window sills and window troughs respectively, which is being finalized in this rulemaking). These estimated dust-lead loadings account for the lower reporting thresholds that EPA estimates laboratories will realistically attain under this rule. EPA collected information on real-world laboratory

reporting limits from stakeholder outreach conversations. These any reportable level values listed in this unit are based on the average of reporting limits (which can vary across laboratories) that currently report numeric dust wipe loadings at levels 80% of the DLAL options. For the details of these calculations, see Section 2.4.6 of the EA (Ref. 10). Once again, EPA also used a hypothetical dust-lead loading value of zero, for comparison purposes only, to better understand the estimated impact that lead exposure from other matrices is expected to have on a young child without any dust-lead exposure.

The dust-lead reportable level will be used as a tool to identify when there are LBP hazards, particularly dust-lead hazards present, and to disclose those hazards to the individuals who requested the work. EPA’s analysis for the final DLRL (any reportable level partnered with the final DLAL of 5 µg/ft<sup>2</sup> and 40 µg/ft<sup>2</sup> for floors and window sills) shows that after implementation of this standard, young children in target housing are estimated to have a 9.8% probability of exceeding an incremental BLL of 1 µg/dL (tables 12–2 and 12–3 in the TSD). In contrast, under the 2019

DLHS of 10 µg/ft<sup>2</sup> and 100 µg/ft<sup>2</sup>, such children would have a 36.7% probability of exceeding that BLL.

When evaluating the final DLRL of any reportable level partnered with the final DLAL of 5 µg/ft<sup>2</sup> and 40 µg/ft<sup>2</sup> for floors and window sills by its impact on the metric of total BLL, the modeling includes exposure from other media such as soil, diet, water, and air. Importantly, even at zero dust-lead, 2-year-old children in target housing are estimated to have a 5.7% probability of exceeding the BLRV given the impact of these other exposures. This is because children who reside in target housing (built before 1978) have higher exposures to lead in soil and water relative to the overall population of US children (Ref. 71). However, the TSD modeling results did show that for any reportable level approach partnered with the final DLAL, there was a 10% probability of exposed 2-year-old children’s BLL exceeding the CDC BLRV given their likely exposures to other sources of lead, an increase of 4.3% from the 5.7% probability at zero dust-lead and a reduction from the 2019 DLHS levels of 18%.

TABLE 3—PERCENT EXCEEDANCE VALUES FOR DLRL CANDIDATES, AGE: 2-YEAR-OLD (30 MONTHS)

Approach	Floor (µg/ft <sup>2</sup> )	Sill (µg/ft <sup>2</sup> )	Probability			
			Total BLL >3.5 µg/dL (%)	Total BLL >5 µg/dL (%)	Dust only BLL >1 µg/dL (%)	Dust only BLL >2.5 µg/dL (%)
Zero <sup>1</sup> .....	0	0	5.7	2.2	0.0	0.0
ARL With 3/20 DLAL .....	0.8	0.8	8.4	3.0	4.2	0.2
ARL With 5/40 DLAL .....	2.0	4.3	10.0	3.8	9.8	0.9
Current Standard .....	10	100	18.0	7.5	36.7	6.5

<sup>1</sup> The exceedance values for zero dust-lead are provided for comparison with the DLRL candidates; it is not a candidate value and is for informational purposes only.

DLRL candidates with the any reportable level approach are also estimated to be associated with a considerable reduction in the percent exceedance values for the lowest IQ decrements when compared with the

current DLHS of 10/100 µg/ft<sup>2</sup> for floors and window sills. Any reportable level partnered with the final DLAL option (5 µg/ft<sup>2</sup>, 40 µg/ft<sup>2</sup>) is estimated to have an 8.4% probability of greater than 2 points of IQ decrement associated with dust-

exposure, keeping the percentage of exceedance of 2 points of IQ decrement below 10% probability compared with the previous 2019 DLHS of 37.9%.

TABLE 4—PERCENT EXCEEDANCE VALUES FOR DLHS CANDIDATES, AGE: 6-YEAR-OLD (72 MONTHS)

Approach	Floor (µg/ft <sup>2</sup> )	Sill (µg/ft <sup>2</sup> )	Probability			
			Total IQ decrement >1pt (%)	Total IQ decrement >2pt (%)	Dust only IQ decrement >1pt (%)	Dust only IQ decrement >2pt (%)
Zero <sup>1</sup> .....	0	0	88.9	48.7	0.0	0.0
ARL With 3/20 DLAL .....	0.8	0.8	96.4	71.0	20.3	2.7
ARL With 5/40 DLAL .....	2.0	4.3	97.7	78.0	39.2	8.4
Current Standard .....	10	100	99.4	90.3	75.8	37.9

<sup>1</sup> The exceedance values for zero dust-lead are provided for comparison with the DLRL candidates; it is not a candidate value and is for informational purposes only.

#### d. Public Comment Input

EPA received a number of comments during the public comment period that supported the proposed DLHS approach (described as DLRL moving forward) of “any reportable level” based on their view that there is no safe level of lead exposure. Multiple commenters also emphasized the dangers of lead exposure and were supportive as the DLRL will make the public and the regulated community aware of the risk lead dust may pose. Comments were also received expressing a lack of support for any reportable level, highlighting several primary concerns: that this approach would lead to larger public health impacts, create housing instability, encompass background levels of lead or lead sources that are not from lead-based paint, that the level would vary or be inconsistent from laboratory to laboratory, concerns over liability, and the impacts that an increase in costs would have.

EPA’s responsibility when revising the DLRL (which is being done in accordance with the May 2021 Court Opinion and EPA’s statutory authority) is to identify “any condition that causes exposure to lead from lead-contaminated dust . . . that would result in adverse human health effects” (emphasis added) (15 U.S.C. 2681(10)). These health-only considerations do not include broader public health concerns and are specifically focused on the health impacts of dust-lead exposure, without consideration of housing instability, source of the lead in the dust, cost, etc. In 2019 when EPA originally revised the DLHS, the Agency did so based on other factors such as risk management, consistency across the U.S. government, and laboratory capacity and capability, among other reasons. The 2021 Court opinion clearly explained that EPA must reconsider the 2019 DLHS and do so using health-only factors.

Firstly, EPA agrees with public commenters about the importance of the availability of affordable housing in the United States and wants to highlight actions this Administration has taken on this issue, such as the May 2022 Housing Supply Action Plan which was last updated in July 2023 with actions to further lower housing costs and boost supply (Refs. 72 and 73). Access to secure housing is an important social determinant of health (Ref. 74). Research finds negative health effects resulting from three key mechanisms of housing insecurity: lack of housing affordability leading to stress and material deprivation (Refs. 75, 76, 77 and 78), lack of housing stability (Refs.

79, 80, 81, 82 and 83), and lack of safe and adequate housing (Refs. 84, 85, 86, 87 and 88). EPA does not want to negatively impact the availability of housing stock with this final rulemaking nor disincentivize participation in any Federal programs and plans to work closely with HUD to try to help mitigate any such consequences. See Unit V.B. for more information on the implications of this rulemaking on HUD programs.

Secondly, EPA acknowledges that lead is naturally occurring and that it is impossible to entirely remove lead from nature. EPA acknowledges that background concentrations of dust-lead could be higher than any reportable level as analyzed by an NLLAP-recognized laboratory, depending on the sensitivity of the dust-wipe sampling technology being used and the background levels themselves. However, in EPA’s 2001 LBP Hazards Rule establishing the original dust-lead standards, including the DLHS and DLCL (described as DLRL and DLAL moving forward), EPA explained that the Agency would not exclude from coverage under TSCA Title IV certain dust or soil based on its lead source due to both statutory and technical reasons. The 2001 Response to Comment Document (that accompanies the 2001 LBP Hazards Rule) rightly pointed out that the definitions of “lead-contaminated soil” and “lead-contaminated dust” from TSCA section 401 do not include mention of lead-paint or any reference to paint as the source of lead in dust or soil.

Additionally, the definition of a “lead-based paint hazard” lists exposure to lead from lead-contaminated dust and soil as sources of lead contamination separate from—and not explicitly linked to—lead-contaminated paint. The 2001 Response to Comment Document continues that in addition to soil, paint and dust being defined separately and distinctly in the statute, TSCA section 403 directs EPA to “promulgate regulations which shall identify, for the purposes of [TSCA Title IV] and the Residential Lead-Based Paint Hazard Reduction Act of 1992, lead-based paint hazards, lead-contaminated dust, and lead-contaminated soil” (15 U.S.C. 2683). If the definitions for lead-contaminated dust and soil were meant to include only lead from paint, it would not be necessary to list them separately in TSCA section 403. EPA ultimately concluded, based on the “breadth of the definition for lead-contaminated dust and soil taken together with the structures of both Title X and TSCA demonstrate that the lead

source in lead-contaminated dust and soil covered by these statutes is not limited to lead from paint.” For the full discussion, see the 2001 response to comments document (Ref. 89).

Separately, EPA also pointed out in the 2001 response to comments document the complexity of identifying a method for distinguishing the risks based on different types of lead (*i.e.*, from different sources). It is not possible to determine easily and with good precision what element of lead in dust or soil is from what specific source or building component. EPA concluded at the time that “there is a distinct absence of a scientific method to determine conclusively that the source of lead in dust or soil is not paint on a routine basis.” EPA believes that this conclusion has not changed, and while there are some studies that involve stable isotope ratios (see 2001 response to comments document for more information), those are not a viable solution for the LBP activities program which includes numerous properties that fall under the definition of target housing and COFs, with risk assessments and testing happening across the United States on a routine basis.

Note that the U.S. Court of Appeals for the District of Columbia Circuit upheld this interpretation pertaining to source apportionment in 2002 in *Nat’l Multi Housing Council v. EPA*, 292 F.3d 232 (D.C. Cir. 2002). Based on the epidemiological evidence available, EPA observed in the 2013 and 2024 Integrated Science Assessments that there is no evidence of a threshold below which there are no harmful effects on cognition from lead exposure, (Refs. 5 and 56), and that conclusion is not impacted by the source of that lead exposure. EPA is also unaware of any information that points to different health effects based on different types of dust-lead (*i.e.*, dust-lead from soil vs. dust-lead from household paint).

Thirdly, EPA agrees with the commenters that the final DLRL (previously referred to as DLHS) will potentially vary from laboratory to laboratory. EPA sees this as a strength of the final DLRL: that there is room for improvement and the possibility of getting as low as reliably reportable depending on the sensitivity of the technology, which in turn allows the regulated community to be able to disclose lower levels. In addition, EPA sets the minimum standards laboratories need to meet, outlined in the latest LQSR version 4.0. Therefore, EPA feels the potential for variability that the commenters are raising is limited and any variability would be below the 80%

of the lowest action level for dust wipe samples per specific surface area (*i.e.*, equal to or less than 4  $\mu\text{g}/\text{ft}^2$  for floors, 32  $\mu\text{g}/\text{ft}^2$  for window sills and 80  $\mu\text{g}/\text{ft}^2$  for troughs). This will also reduce the need to revise the DLRL, unless there is a compelling reason to, such as a threshold for adverse effects being identified. EPA also notes that it has previously adopted and continues to apply an analogous concept in the disclosure program (40 CFR part 745, subpart F and 24 CFR part 35, subpart A), where disclosable records and reports have included any information regarding LBP or LBP hazards, including dust-lead levels below the DLHS (described as DLRL moving forward). As laboratory testing protocols have improved, so has the quality of the information in the records and reports based on such testing, which are ultimately provided to the home/building owner or lessee.

EPA points the regulated community to other changes being finalized in the rulemaking, such as the definition of abatement and the nomenclature change, which will adjust the terminology used for the standards. EPA is finalizing a change in the definition of abatement that results in the recommendation for action being shifted to the DLAL (rather than the DLHS, described as DLRL moving forward, as has been the case historically). The DLAL is being finalized as 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$  and 100  $\mu\text{g}/\text{ft}^2$  for floors, window sills, and window troughs. EPA also recommends that all local, Federal and authorized programs make similar changes, to change their trigger for recommending action, for the same reasons EPA has explained that this rulemaking adopts such changes. EPA believes this change will also alleviate some of the concerns surrounding laboratory inconsistency if the recommendation for action hinges off of the DLAL rather than the DLRL. See Unit IV.A. and Unit IV.E. for more information on these amendments.

Additionally, due to feedback from public comments (see Section 5 of the response to comments document that accompanies this final rule for more information), EPA is also finalizing changes to the nomenclature of DLHS and DLCL, to dust-lead reportable level and dust-lead action level (abbreviated DLRL and DLAL). EPA believes these revisions will better communicate to the public the purpose of the standards and to reduce confusion. EPA believes these changes will also help address some of the commenters' concerns about potential liability for LBP professionals or landlords from allowing dust-lead hazards to remain.

A more comprehensive version of EPA's responses on all of these issues can be found in the response to comments document that accompanies this rulemaking (Ref. 38).

## 2. Other Approaches EPA Considered in the Proposed Rule

EPA considered two other approaches for revising the DLHS (described as DLRL moving forward): a "numeric standard" approach and a "post-1977 background" approach. Both approaches were discussed in depth in the proposed rule, which also included requests for comment. All three approaches (*i.e.*, any reportable level, numeric standard, and post-1977 background) would take different analytical paths to revising the DLRL based only on health considerations. EPA is finalizing any reportable level, see Unit IV.B.1. for more information; however, the other two approaches EPA considered are summarized briefly elsewhere in this unit (Unit IV.B.2.). See the 2023 Proposed Rule for more detailed information (Ref. 55).

The "numeric standard" approach would have been based on the probability of exceedance of one or more IQ or BLL metrics as determined by the Agency, meaning that the Agency would establish a DLRL with a rationale based solely on the interpretation of the TSD results and using a selected metric. To do this, the Agency would need to establish a health or exposure metric of interest (*i.e.*, target BLL or IQ change) that would be acceptably protective of human health, such as the metrics used in the TSD and described in Unit IV.B.1.c. Within the TSD and for the 2023 Proposed Rule, EPA evaluated several numeric DLRL candidates that the Agency thought were appropriate given the health and exposure metrics of interest and the uncertainty of the model at low loading values. The numeric DLRL candidates discussed in the proposed rule were 1/10  $\mu\text{g}/\text{ft}^2$  (*i.e.*, 1  $\mu\text{g}/\text{ft}^2$  for floors and 10  $\mu\text{g}/\text{ft}^2$  for sills), 2/20  $\mu\text{g}/\text{ft}^2$ , 3/30  $\mu\text{g}/\text{ft}^2$ , and 5/40  $\mu\text{g}/\text{ft}^2$  and those values were compared with the specified BLL and IQ metrics to estimate the probability of exceeding the BLL or IQ targets.

In 2001 and 2019, EPA expressed the challenges of meeting the statutory criterion for defining a LBP hazard (15 U.S.C. 2681(10)) because it requires EPA to choose a cutoff for when unacceptable risk exists. EPA noted in 2001, even if the science and environmental-lead prevalence data were perfect, there would likely be no agreement on the level, or certainty, of risk that is envisioned in the phrase "would result in adverse human health

effects." Thus, EPA explained that it "would not be appropriate to base a [LBP] hazard standard on any specific probability of exceeding any specific [BLL]." (Refs. 2 and 20).

For this numeric approach the Agency would need to establish a health or exposure metric of interest (*i.e.*, target BLL or IQ change) that would be acceptably protective of human health. Under this numeric standard approach, EPA planned to use the threshold of 5% probability of exceedance for a child from the population of interest (*i.e.*, young children living in pre-1978 housing and COFs). This is similar to the 1 to 5% probability that was used in 2001 for the lowest DLHS candidate (Ref. 20). However, EPA ultimately continues to agree with the challenges that were highlighted in 2001 and 2019, and the complexity with identifying a cutoff of risk or specific IQ/BLL metrics of interest that would be acceptable for purposes of setting the DLRL.

Accordingly, EPA continues to favor the "any reportable level" approach.

EPA also considered and requested comment on the "post-1977" background approach that would use the average background dust-lead levels of housing built in 1978 and beyond as the DLRL. This approach would align target housing dust-lead levels with dust-lead levels in housing built after lead-based paint was banned. In 1978, the CPSC banned lead in paint and similar surface-coating materials for consumer use in excess of 0.06% and revised the level in 2009 to 0.009% following the Consumer Product Safety Improvement Act of 2008 (Pub. L. 110–314). As a result of CPSC's 1978 lead paint ban, the focus of EPA's LBP activities program is target housing, which includes most pre-1978 housing and COFs. This approach would result in lowering the DLRL to the dust-lead background levels of housing built after 1977 (known as "post-1977 background"), which are presumably not from paint on the house in question containing more than 0.06% lead.

Post-1977 background dust-lead values were calculated from a weighted geometric mean of the dust-lead loadings from the American Healthy Homes Survey II and were found to be 0.2  $\mu\text{g}/\text{ft}^2$  for floors and 0.8  $\mu\text{g}/\text{ft}^2$  for window sills (Refs. 10 and 53). Setting the DLRL at the post-1977 background dust-lead levels would allow EPA to focus on dust-lead hazards above what is expected in housing without LBP (*i.e.*, after CPSC established a maximum level of lead in paint for consumer products, including home paints). Establishing DLRL for target housing and COFs in this way, using post-1977 background

dust-lead levels, would address disparities in the dust-lead levels that children in target housing may be exposed to and the corresponding disparate health risks. This approach would also align with the focus of Title X on lead hazards in housing constructed before 1978. However, there are questions about whether the post-1977 background approach would directly address the 2021 Court Opinion as the “any reportable level” approach does.

See the 2023 Proposed Rule for more detailed information about these two approaches, including a description of their estimated modeling results, such as BLL/IQ decrement impacts (Ref. 55). EPA did not receive significant public comment for either of these approaches and given the 2021 Court Opinion remanding the DLHS for reconsideration based only on health factors, the results of the analysis in the TSD, and the lack of a discernible threshold in the evidence for the association of blood lead with harmful effects on cognition in young children, EPA is finalizing revisions to the 2019 DLHS to any reportable level of lead analyzed by an NLLAP-recognized laboratory, as proposed.

### C. Dust-Lead Action Level Approach

TSCA Title IV granted EPA the authority to regulate LBP activities, and to take into account reliability, effectiveness, and safety (15 U.S.C. 2682(a)(1)) when setting those regulations (including the DLAL). While considering those three criteria, the 2001 LBP Hazards Rule modified the work practice standards to include DLCL (described as DLAL moving forward), which “are used to evaluate the effectiveness of cleaning following an abatement” (Ref. 20). In both the 2001 LBP Hazards Rule and the 2021 Final Rule, the DLCL were finalized as the same value as the DLHS (described as DLRL moving forward) for floors and window sills. When originally established, EPA considered the DLCL in the broader context of Title X, and selected DLCL that were compatible with a “workable framework for lead-based paint hazard evaluation and reduction.” EPA chose DLCL that were consistent with the DLHS in part to ensure they were “as easy as possible to understand and implement” (Ref. 66). At that time EPA established the DLCL and the DLHS at 40  $\mu\text{g}/\text{ft}^2$  and 250  $\mu\text{g}/\text{ft}^2$  for floors and window sills, with a separate DLCL of 400  $\mu\text{g}/\text{ft}^2$  for troughs.

In 2021 the DLCL set by EPA continued to mirror the DLHS as it had done historically, as the Agency explained that it wanted to update the

DLCL to achievable levels that would demonstrate elimination of dust-lead hazards under the 2019 DLHS of 10  $\mu\text{g}/\text{ft}^2$  for floors and 100  $\mu\text{g}/\text{ft}^2$  for window sills. The 2021 updates to the DLCL restored consistency between the DLCL and DLHS, which had been lowered in 2019 without a corresponding amendment to the DLCL. Previous public comments received on the 2018 DLHS proposal and 2020 DLCL proposal favored lowering the DLCL to be consistent with the DLHS (Refs. 90 and 91). As a result, in 2021 EPA finalized DLCL of 10  $\mu\text{g}/\text{ft}^2$  for floors and 100  $\mu\text{g}/\text{ft}^2$  for window sills (the same levels as the DLHS), and “EPA considered the achievability of these levels, how the lower dust-lead loadings can be reliably detected by laboratories, the effectiveness of these levels, and consistency with the revised 2019 standards and across the Federal Government” (Ref. 3).

The 2021 Court Opinion affirmed that “TSCA [Title] IV gives the EPA latitude to consider ‘reliability, effectiveness, and safety’” when promulgating regulations “[w]ith respect to implementation, including abatement.” *A Cmty. Voice*, 997 F.3d at 995 (Ref. 9). This would include the DLCL/DLAL as they represent part of post-abatement work practices. The Court continued by emphasizing that this gives EPA more discretion when setting the DLCL because they are relevant to the implementation of remedial measures, rather than the identification of a hazard (*i.e.*, DLHS/DLRL). The Court analogized this dichotomy to other environmental statutory schemes (see also Unit IV.B.1.b. for EPA’s discussion of the SDWA). The Court also held that the DLCL and DLHS are directly related and must be reconsidered together. Yet the Court recognized the difference in statutory authority and considerations (see Unit IV.B. for more information on DLRL, previously referred to as DLHS).

In accordance with the 2021 Court Opinion, EPA is finalizing revisions to the DLAL (previously referred to as the DLCL) in the same proceeding as the reconsideration of the 2019 DLHS (described as DLRL moving forward). Given the Court’s direction for the considerations for how to revise the DLHS and DLCL and similar to what was proposed in 2023, EPA is finalizing dust-lead action levels that are decoupled from the dust-lead reportable levels (see Unit I.B. and C. for more background on decoupling). EPA evaluated the 2021 DLCL in accordance with the statute and is finalizing revisions to lower the levels to the alternative option that was proposed in 2023, from 10  $\mu\text{g}/\text{ft}^2$ , 100  $\mu\text{g}/\text{ft}^2$  and 400

$\mu\text{g}/\text{ft}^2$  for floors, window sills, and troughs, respectively, to 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$  and is finalizing a change in the terminology to DLAL.

#### 1. Rationale for Selecting the Final DLAL

EPA is finalizing the DLAL given the statutory criteria of reliability, effectiveness, and safety, based on consideration of HUD’s Lead Hazard Control Clearance Survey (LHCCS), an evaluation of laboratory capabilities and capacity, the potential for risk reduction compared to the 2021 DLCL by lowering exposure to dust-lead, resource considerations and the Agency’s careful review of the public comments received on the proposal. EPA chose 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$  for floors, window sills and window troughs, respectively, as the DLAL based on these consideration as well as high confidence that these standards can be successfully implemented, as shown by the use of these clearance levels currently in NYC. Another consideration supporting the choice of these DLAL is to avoid potentially spreading the limited resources for LBP hazard mitigation so broadly that they may be diverted from scenarios that present the greatest risk.

##### a. Lead Hazard Control Clearance Survey.

EPA collaborated with HUD to develop the 2015 LHCCS. The survey aimed to examine whether HUD’s Office of Lead Hazard Control and Healthy Homes (OLHCHH) Lead Hazard Control (LHC) grantees could achieve DLCL (described as DLAL moving forward) below the standards in place at that time (*i.e.*, below 40  $\mu\text{g}/\text{ft}^2$ , 250  $\mu\text{g}/\text{ft}^2$  and 400  $\mu\text{g}/\text{ft}^2$  for floors, window sills and troughs, respectively). LHC work performed by the grantees must be conducted by LBP certified individuals. Since most of the LHC grantees use commercial firms in their area, HUD OLHCHH believes that the grantees are conducting a large percentage of these activities and are therefore representative of the regulated community.

98 LHC grantees completed the 2015 survey, giving HUD information from housing units in which lead hazard control activities took place from 2010 through 2012, for a total dataset of 1,552 housing units including 7,211 floor samples and 4,893 window sill samples (Ref. 54). The data were analyzed to determine the percentage of samples cleared at or below specific values. Numerical modeling was performed to estimate loadings that fell below laboratory detection limits. For more information on how that analysis was

conducted please see appendix D of the EA (Ref. 10). Since the 2015 LHCCS report was published, to the Agency's knowledge, there has not been any data or source of information of this magnitude in terms of clearance samples alongside the details of the process, including the number of tests performed (with results) and the type of additional work or cleaning performed. EPA found this 2015 LHCCS report still relevant and recent enough to provide meaningful input to inform this reconsideration rulemaking.

EPA's analysis of the LHCCS data indicates that 72% of samples from 2010 to 2012 showed dust-lead levels at or below 5  $\mu\text{g}/\text{ft}^2$  for floors, 88% were at or below 40  $\mu\text{g}/\text{ft}^2$  for window sills, and 93% were at or below 100  $\mu\text{g}/\text{ft}^2$  for window troughs. As a result, EPA believes that the final DLAL of 5  $\mu\text{g}/\text{ft}^2$  for floors, 40  $\mu\text{g}/\text{ft}^2$  for window sills and 100  $\mu\text{g}/\text{ft}^2$  for troughs are achievable by LBP professionals, especially since the survey respondents were only required to achieve clearance below the 2001 DLCL at that time (40  $\mu\text{g}/\text{ft}^2$  for floors, 250  $\mu\text{g}/\text{ft}^2$  window sills, and 400  $\mu\text{g}/\text{ft}^2$  for window troughs). It is possible that the percentage of samples achieving clearance may be even higher today, due to the 2021 revision of the DLCL to 10  $\mu\text{g}/\text{ft}^2$  for floors and 100  $\mu\text{g}/\text{ft}^2$  for window sills, meaning clearance has had to be achieved at these lower levels or below, since that time. As a result, EPA has high confidence that the 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$  for floors, window sills, and window troughs DLAL option is achievable by LBP professionals, considering reliability and effectiveness.

#### b. Laboratory Capabilities for DLAL

In order to better understand how laboratory capabilities would be impacted by the proposed DLAL (previously referred to as DLCL) of 3  $\mu\text{g}/\text{ft}^2$ , 20  $\mu\text{g}/\text{ft}^2$ , and 25  $\mu\text{g}/\text{ft}^2$  for floors, window sills and troughs, respectively, and the final DLAL of 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$ , EPA spoke with eighteen NLLAP-recognized laboratories, nine prior to the 2023 Proposed Rule and nine after the public comment period was complete (Refs. 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108 and 109). EPA wanted to collect additional information from NLLAP-recognized laboratories about their dust-wipe programs, especially given that a non-static DLRL would shift the LQSR "action level" to the DLAL (see Unit IV.B.1.a. for more information). As explained in the proposal, EPA was interested in information from laboratories who had high dust wipe

testing capacity and laboratories that had both a flame atomic absorption spectroscopy (FAAS) and the more sensitive laboratory instruments such as inductively coupled plasma atomic emission spectroscopy (ICP-AES) (also referred to as inductively coupled plasma optical emission spectroscopy or ICP-OES) or an inductively coupled plasma mass spectroscopy (ICP-MS). The Agency wanted additional background on ICP instruments and their use for dust wipe testing in general. After the public comment period, EPA wanted to continue building on the outreach that had been previously performed and further refine the Agency's understanding of the threshold for FAAS technology in terms of a lower limit of sensitivity by meeting with nine additional laboratories (eighteen total) and physically touring one location (Ref. 101, 102, 103, 104, 105, 106, 107, 108 and 109). Among the laboratories EPA spoke to in 2022, 2023 and 2024, 14 were accredited to use FAAS, 10 were accredited to use ICP-AES, and 2 were accredited to use ICP-MS to analyze dust wipe samples for lead, some being accredited for multiple types of technology. Seventeen of the eighteen laboratories provide commercial testing services, four of which are among the largest U.S. lead laboratories by dust wipe test volume. For additional details about the laboratory capabilities, see Section 2.4 in the EA that accompanies this rulemaking (Ref. 10).

FAAS has been the most popular choice for lead dust wipe testing for some time due in part to its low purchase price and operating cost, speed, and ease of use. Over two-thirds of laboratories recognized under the NLLAP for lead dust wipe testing currently use FAAS, and over half of these NLLAP laboratories rely solely on FAAS (Ref. 10). The laboratories using ICP-AES for dust-wipes tested an order of magnitude fewer dust-wipe samples than laboratories using FAAS. Some of the laboratories accredited for both types of instruments only use their ICP instrument for wipes being analyzed for multiple metals for industrial hygiene analyses or analysis of air or water samples instead of for dust-wipes related to EPA's lead-based paint activities rule (Refs. 97, 101, 104, 107, 108). One laboratory that uses both FAAS and ICP-AES indicated that it used FAAS for 95% of the samples tested and ICP-AES for only 5% (Ref. 98). Another laboratory that uses both FAAS and ICP-AES stated that it used the ICP-AES instrument to test approximately 20 dust-wipes per year,

out of 34,000 to 36,000 lead dust-wipes that it analyzes each year (Ref. 104).

The information received from the laboratory outreach that was performed in preparation for the proposed rule indicated that if finalized as proposed, ICP-AES would likely become the instrument standard for dust wipe testing for lead at the NLLAP laboratories, as FAAS instruments were not reported to consistently meet the quantitation limits associated with the proposed DLCL. ICP-AES instruments can detect lead at lower levels than FAAS instruments, but ICP-AES instruments are more expensive to purchase, have higher operating costs for consumable supplies, require a more experienced technician to operate, and need more time for sample preparation, analysis, and quality control requirements than FAAS instruments. Laboratories raised several concerns about switching to ICP instruments, including the reduction in the throughput rate, the need for multiple instruments and staff to operate them, higher prices, delayed turnaround times, and concerns over maintaining the current sample volume. For example, one 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 (Ref. 96). Several laboratories questioned whether they would keep dust-wipe testing in their portfolio if EPA finalized the levels from the 2023 Proposed Rule (Refs. 96, 98, 103, 107).

This shift in instrumentation that would have been needed as a result of the clearance levels in the proposed rule would increase both cost per sample as well as turnaround time. Dust wipe testing by ICP-AES is approximately two to four times more expensive per sample than testing by FAAS (Refs. 96, 98, 100, 104, 108). Laboratories also mentioned that a substantial portion of their dust-wipe testing clients request results in one day or less (in some cases in as little as several hours) following a lead hazard reduction activity, so that residents can quickly reoccupy their homes (Refs. 95, 101, 103). Some of the laboratories using FAAS indicated that they offered turnaround times as short as several hours (Refs. 96, 104, 107). Several laboratories doubted the feasibility of providing same-day or next-day turnarounds at sufficient volume should they switch to ICP technology (Refs. 96, 98, 104, 108). Longer turnaround times would delay when individuals who temporarily

moved out can reoccupy their homes, requiring them to spend more time in temporary accommodations (Ref. 91) which can increase the costs of lead hazard reduction activities, thus potentially reducing the number of abatements and interim control that would be funded.

EPA found that several laboratories forecast that dust-wipe test volumes will continue to grow over the next decade even in the absence of this rule (Refs. 96, 97 and 102). First, a growing proportion of laboratories' dust-wipe testing business comes from landlords who need to comply with municipal housing regulations set by States or localities. Laboratories expect similar regulations to be enacted in the coming years, increasing demand for dust-wipe testing for clearance (Ref. 97). Second, in recent years laboratories have received an increased volume of test samples generated by disaster recovery programs. When there is a natural disaster (such as a major flood) that requires clean-up and re-construction of pre-1978 housing, laboratories can receive an unexpected spike in dust-wipe tests. Laboratories pointed out that the increasing rate of disaster-related demand spikes may overwhelm their capacity if only ICP can be used for dust-wipe testing.

Finally, laboratories also expressed concern that increases in costs for activities such as testing, cleaning, and temporary accommodations due to the dust-lead levels EPA originally proposed would reduce the number of housing units where lead hazards would be addressed, in part because State and local municipalities often have a fixed budget for their housing and health programs (Refs. 96 and 108). The laboratories felt that the 2023 Proposed Rule could have the unintended result of exposing more individuals to elevated dust-lead levels for a longer period of time (Refs. 108 and 109). Given the information gathered via EPA's outreach to laboratories, EPA is concerned that setting action levels too low would deter participation in lead-hazard control programs and activities that require dust-wipe testing or cause a market failure that does not allow the current volume of testing to continue.

EPA is finalizing a DLAL of 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$  for floors, window sills and troughs. EPA has increased confidence that, relative to the proposed 2023 DLCL (*i.e.*, 3  $\mu\text{g}/\text{ft}^2$ , 20  $\mu\text{g}/\text{ft}^2$ , and 25  $\mu\text{g}/\text{ft}^2$ ), laboratories can numerically quantify dust-lead levels of 5  $\mu\text{g}/\text{ft}^2$  with FAAS technology and attain a quantitation limit of equal to or less than 80% of the final DLAL (*i.e.*, 4  $\mu\text{g}/\text{ft}^2$ , 32  $\mu\text{g}/\text{ft}^2$ , and 80  $\mu\text{g}/\text{ft}^2$ ) for floors,

window sills and troughs. EPA believes that the final DLAL, rather than the proposed 2023 DLCL, partnered with the changes incorporated into LQSR 4.0, allows NLLAP-recognized laboratories to continue using FAAS technology. This would mitigate any unintended reductions in dust wipe capacity (*e.g.*, throughput time, cost, labor, etc.) due to having to switch to more sensitive technology such as ICP-AES. While some NLLAP-recognized laboratories may opt for more sensitive technologies, EPA does not foresee any concerns reporting to 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$  even for those surfaces with a smaller area such as on window sills or troughs if laboratories successfully attain a regulatory limit of 5  $\mu\text{g}/\text{ft}^2$ .

### c. Final DLAL Modeling Results

EPA must understand the estimated health impacts of dust-lead exposure when selecting a DLAL that is reliable, effective, and safe, as well as to help inform the economic analysis. The TSD that accompanies this rule includes an evaluation of dust-lead loadings, specifically the 2021 DLCL of 10  $\mu\text{g}/\text{ft}^2$  and 100  $\mu\text{g}/\text{ft}^2$  for floors and window sills, the proposed DLAL of 3  $\mu\text{g}/\text{ft}^2$  and 20  $\mu\text{g}/\text{ft}^2$  for floors and window sills and the final DLAL of 5  $\mu\text{g}/\text{ft}^2$  and 40  $\mu\text{g}/\text{ft}^2$  for floors and window sills, compared to estimated BLL and IQ decrements. The unique dust-lead contribution to exposure from window troughs has not been distinguished from window sills given the strong correlation between dust-lead loadings on the two surface types, the lack of data on access to window troughs and window sills by children, and the paired impacts in window sills and window troughs from intervention studies addressing lead paint in window trim and casings. Further discussion on exposure to window troughs can be found in the TSD in appendix C. As a result, exposure to window trough dust-lead and resultant benefits from a lowered DLAL for troughs is not calculated separately for this rulemaking. The TSD also describes modeling of dust-lead exposures at the specific DLAL options for window sills and floors only and estimates of both BLLs that were evaluated for children at each age up to age six, including age two (generally, this is the age of greatest modeled exposure), and lead-related reduction in IQ at age six was estimated from the lifetime average BLL (average of BLLs across the period prior to age six). See Unit IV.B.1.c. for more specific information on which BLL and IQ decrements were chosen for comparison, and Unit III. for more details on estimated potential impacts

from dust-lead exposures analyzed in the TSD. Tables 5 and 6 represent the percent exceedance of highlighted metrics at dust-lead loadings corresponding to the 2021 DLCL (10  $\mu\text{g}/\text{ft}^2$  and 100  $\mu\text{g}/\text{ft}^2$  for floors and window sills), the final DLAL (5  $\mu\text{g}/\text{ft}^2$  and 40  $\mu\text{g}/\text{ft}^2$  for floors and window sills) and zero (for comparison purposes only).

The final DLAL of 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$  for floors, window sills and troughs represents a 50% or more reduction of dust-lead left on a surface following the completion of an abatement, when compared to the 2021 DLCL (10  $\mu\text{g}/\text{ft}^2$ , 100  $\mu\text{g}/\text{ft}^2$ , and 400  $\mu\text{g}/\text{ft}^2$ ). As a result, DLAL of 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$  would be beneficial to maintaining lower children's BLLs and protecting against associated health outcomes such as decreased IQ. The modeling results provided in the TSD show that 2-year-old children in pre-1978 housing exposed to dust-lead loadings of 5  $\mu\text{g}/\text{ft}^2$  for floors and 40  $\mu\text{g}/\text{ft}^2$  for window sills would have an estimated 13.9% probability of exceeding a total BLL of 3.5  $\mu\text{g}/\text{dL}$  (CDC's BLRV). Total BLL includes exposure from other media such as soil, diet, water, and air; even at zero dust-lead, 2-year-old children would still have a 5.7% probability of exceeding the CDC's BLRV from these other sources. The 13.9% probability of exceeding the BLRV is significantly lower than the 18.0% probability of exceedance of the BLRV when exposed to the current DLCL of 10  $\mu\text{g}/\text{ft}^2$  for floors and 100  $\mu\text{g}/\text{ft}^2$  on window sills (see table 5).

When considering dust-lead exposure only (not including other estimated lead exposures from soil, diet, water, and air), 2-year-old children in pre-1978 housing exposed to the final DLAL of 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$  would have a 3.2 to 23.0% probability of exceeding a BLL of 1 to 2.5  $\mu\text{g}/\text{dL}$  based on the modeled results. The final DLAL is also estimated to be associated with a 22.4% probability of exceeding 2 points of IQ decrement in 6-year-old children. As with total BLL, this is a considerable reduction from the 37.9% chance of exceeding 2 points of IQ decrement for 6-year-old children living in target housing who are exposed the current DLCL (table 6). Overall, the modeling within the TSD indicated that the 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$  DLCL for floors, window sills and troughs represents a substantial reduction in risk from the current clearance levels of 10  $\mu\text{g}/\text{ft}^2$ , 100  $\mu\text{g}/\text{ft}^2$ , and 400  $\mu\text{g}/\text{ft}^2$  for floors, window sills, and window troughs.



TABLE 5—PERCENT EXCEEDANCE VALUES FOR THE FINAL DLAL CANDIDATE, AGE: 2-YEAR-OLD (30 MONTHS)

Approach	Floor (µg/ft <sup>2</sup> )	Sill (µg/ft <sup>2</sup> )	Probability			
			Total BLL > 3.5 µg/dL (%)	Total BLL > 5 µg/dL (%)	Dust Only BLL > 1 µg/dL (%)	Dust Only BLL > 2.5 µg/dL (%)
Zero <sup>1</sup>	0	0	5.7	2.2	0.0	0.0
5/40 DLAL	5	40	13.9	5.5	23.0	3.2
Current Standard	10	100	18.0	7.5	36.7	6.5

<sup>1</sup> The exceedance values for zero dust-lead are provided for comparison with the DLRL candidates; it is not a candidate value and is for informational purposes only.

TABLE 6—PERCENT EXCEEDANCE VALUES FOR THE FINAL DLAL CANDIDATE, AGE: 6-YEAR-OLD (72 MONTHS)

Approach	Floor (µg/ft <sup>2</sup> )	Sill (µg/ft <sup>2</sup> )	Probability			
			Total IQ Decrement > 1pt (%)	Total IQ Decrement > 2pt (%)	Dust Only IQ Decrement > 1pt (%)	Dust Only IQ Decrement > 2pt (%)
Zero <sup>1</sup>	0	0	88.9	48.7	0.0	0.0
5/40 DLAL	5	40	98.8	85.1	62.7	22.4
Current Standard	10	100	99.4	90.3	75.8	37.9

<sup>1</sup> The exceedance values for zero dust-lead are provided for comparison with the DLRL candidates; it is not a candidate value and is for informational purposes only.

These estimates represent post-abatement exposure at the exact dust-lead loadings of the final DLAL, but levels below those values must be achieved in order for an abatement to be considered complete. The subpopulation of children affected by this rule (*i.e.*, children with pre-abatement dust-lead exposures above the action level) experience pre-abatement dust lead loadings that are in the upper percentiles of children living in target housing (Ref. 71). As a result, it is likely that actual exceedances among the full population of children in target housing (*i.e.*, not only those who are affected by this rule, but all children who reside in housing constructed before 1978) are lower than what is represented in the TSD for the subpopulation affected by this rule. In contrast to the TSD, which estimates the health risk and exposure associated with dust-lead loading candidates for a hypothetical population of children in target housing without consideration to how many children are actually affected by the rule, the EA estimates benefits that accrue to only the subpopulation that would be impacted by the DLRL and DLAL revisions. See the Technical Support Document and Economic Analysis that accompany this rulemaking for more information (Refs. 10 and 12).

d. New York City

Between 2019 and 2021 NYC Department of Health and Mental Hygiene lowered their lead dust clearance and lead dust hazard risk assessment testing standards twice. NYC lowered their standards for floors,

window sills and window wells (*i.e.*, troughs), respectively, from 40 µg/ft<sup>2</sup>, 250 µg/ft<sup>2</sup>, and 400 µg/ft<sup>2</sup> to 10 µg/ft<sup>2</sup>, 50 µg/ft<sup>2</sup>, and 100 µg/ft<sup>2</sup> in 2019 (effective June 12, 2019) and again to 5 µg/ft<sup>2</sup>, 40 µg/ft<sup>2</sup>, 100 µg/ft<sup>2</sup> in 2021 (effective June 1, 2021) (Refs. 110 and 111). The Agency spoke to the New York City Department of Health and Mental Hygiene and received feedback during the development of the proposed rule that although there was a transitional period that lasted several months and had various challenges, overall, the regulated community was able to adjust and comply with the new lower standards (Ref. 112). EPA believes that NYC’s experience supports considering the final DLAL of 5 µg/ft<sup>2</sup>, 40 µg/ft<sup>2</sup>, 100 µg/ft<sup>2</sup> for floors, window sills and window troughs to be effective and reliable.

e. Public Comment Input

EPA received a number of comments during the public comment period that supported the proposed DLCL approach (described as DLAL moving forward) of 3 µg/ft<sup>2</sup>, 20 µg/ft<sup>2</sup>, and 25 µg/ft<sup>2</sup> for floors, window sills and troughs, respectively, on the grounds that lowering the levels will further protect children from lead exposure. A mass mail campaign, which consisted of a coalition of 76 organizations and twelve individuals affirmed that the proposed levels promoted the greatest safety for those living in target housing, ensuring remedial measures meaningfully reduce the amount of dust-lead that remains in homes and child care facilities. Multiple comments were also received expressing a lack of support for the proposed DLCL

(described as DLAL moving forward). Many commenters requested that the levels remain at the current 2021 values of 10 µg/ft<sup>2</sup>, 100 µg/ft<sup>2</sup>, and 400 µg/ft<sup>2</sup> for floors, window sills, and window troughs, respectively. Several commenters also requested the alternative DLCL of 5 µg/ft<sup>2</sup>, 40 µg/ft<sup>2</sup>, and 100 µg/ft<sup>2</sup> for floors, window sills, and window troughs rather than the proposed levels. Of those comments that expressed opposition to the proposed DLCL, the concerns were focused around a reduction of laboratory capacity (due to needing to switch to an ICP, which is more sensitive technology), the lack of adequate surface area for both window sill and trough sampling, the potential for this being a deterrent within the industry from performing LBP activities due to an increase in cost, burden, complexity, and a reduction in contractor availability.

Firstly, in response to the support for the proposed DLCL, EPA agrees and acknowledges that according to the results from the technical support document, as dust-lead levels in housing dust-lead levels in housing decrease below the current DLCL (*i.e.*, 10 µg/ft<sup>2</sup>, 100 µg/ft<sup>2</sup>, and 400 µg/ft<sup>2</sup> for floors, window sills, and window troughs), children’s BLLs and associated IQ decrements from lead exposure are also expected to decrease. As a result, a lower DLAL is assumed to be more protective at a particular site than one that results in higher dust-lead loadings. However, based on the public feedback and the response to the 2023 Proposed Rule, as well as laboratory outreach, (see Unit IV.C.1.b. “Laboratory capabilities

for DLAL” for more information), EPA is concerned that if the DLAL were set too low, limited resources for LBP mitigation would be distributed more broadly, diverting them from the most vulnerable communities or situations that present more serious risks to those that present lower risks. EPA is also concerned that increased costs due to the proposed DLCL could result in less LBP work taking place overall. EPA’s analysis indicates that the final rule’s approach to the DLAL is the most cost-effective option analyzed for both the cost per lost IQ point avoided and the cost per ADHD case avoided, as explained in Section 7 of the UMRA Statement. These two benefit types accrue to the most sensitive population affected by this final rule (*i.e.*, children). Assuming limited resources for LBP mitigation, achieving these benefits more cost effectively would result in more lost IQ points avoided and more ADHD cases avoided. Additionally, EPA believes that access to housing is also an important social determinant of health and research finds negative health effects resulting from a lack of safe and adequate housing. Due to the public comments received, EPA has concerns that the proposed DLCL could unintentionally contribute to housing insecurity and longer turnaround times for post-abatement testing, which could impact access.

Secondly, safety is only one aspect of the statutory authority for reconsidering the DLAL (*i.e.*, reliability, effectiveness and safety). In particular, the Ninth Circuit affirmed that when reconsidering the clearance levels “we must give effect to Congress’s clear intent for EPA to consider both health and nonrisk factors.” *Cnty. Voice*, 997 F.3d at 995. As a result, the DLAL is not a solely health-based standard; rather it also considers what cleanup after an abatement is adequately reliable and effective. EPA agrees with commenters that the 2023 proposed DLCL of 3  $\mu\text{g}/\text{ft}^2$ , 20  $\mu\text{g}/\text{ft}^2$ , and 25  $\mu\text{g}/\text{ft}^2$  for floors, window sills, and window troughs respectively, partnered with the revisions in LQSR 4.0 would not present a problem, in terms of testing sensitivity, for laboratories using ICP–AES/OES. However, the majority of laboratories recognized under the NLLAP for lead dust wipe testing currently favor the less sensitive FAAS. EPA continues to believe that if the Agency finalized the DLCL as proposed, then ICP–AES would likely become the instrument standard for dust wipe testing for lead at the NLLAP laboratories. As a result, numerous public comments were received

expressing concern over this switch; FAAS has been the most popular choice for lead dust wipe testing for some time due in part to its low purchase price and operating cost, speed, and ease of use. During the laboratory outreach that was performed for rule development, laboratories raised several concerns about switching to ICP instruments, the reduction in the throughput rate, the need for multiple instruments and staff to operate them, higher prices, delayed turnaround times, and concerns over maintaining the current sample volume. See Unit IV.C.1.b. for more discussion surrounding laboratory capabilities and capacity. Ultimately, due to public comments received, laboratory outreach and concerns raised about the reliability and effectiveness of the lower proposed DLCL, EPA is finalizing the alternative values of 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$  for floors, window sills, and window troughs respectively. EPA does not want to create a program that raises significant feasibility concerns, or that inadvertently reduces the number of abatement jobs that the regulated community is able to perform (due to a dilution of intervention resources), thus potentially impacting families and children and resulting in less of an overall reduction in dust-lead.

A more comprehensive version of EPA’s responses on all of these issues can be found in the response to comments document that accompanies this rulemaking (Ref. 38).

## 2. Other Approach EPA Considered in the Proposed Rule

In 2023 EPA proposed to revise the 2021 DLCL from 10  $\mu\text{g}/\text{ft}^2$ , 100  $\mu\text{g}/\text{ft}^2$  and 400  $\mu\text{g}/\text{ft}^2$  for floors, window sills, and troughs to 3  $\mu\text{g}/\text{ft}^2$ , 20  $\mu\text{g}/\text{ft}^2$ , and 25  $\mu\text{g}/\text{ft}^2$ , and requested comment on an alternative DLCL option of 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$ . According to the 2015 LHCCS report, 64% of the 2010 to 2012 samples showed dust-lead levels at or below 3  $\mu\text{g}/\text{ft}^2$  for floors, 64% were at or below 20  $\mu\text{g}/\text{ft}^2$  for window sills, and 64% were at or below 25  $\mu\text{g}/\text{ft}^2$  for window troughs. As a result, approximately 64% of samples from the LHCCS data had dust-lead levels at or below the primary DLCL option of 3  $\mu\text{g}/\text{ft}^2$  for floors, 20  $\mu\text{g}/\text{ft}^2$  for window sills and 25  $\mu\text{g}/\text{ft}^2$  for troughs, which EPA thought was achievable, especially since the survey respondents were only required to achieve clearance below the 2001 DLCL at that time (40  $\mu\text{g}/\text{ft}^2$ , 250  $\mu\text{g}/\text{ft}^2$ , and 400  $\mu\text{g}/\text{ft}^2$  for floors, window sills and troughs, respectively). However, given the concerns highlighted by public commenters and during laboratory outreach, EPA is finalizing the alternative DLCL option of

5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$  along with the terminology change to DLAL. See the 2023 Proposed Rule for more detailed discussion about the proposed DLCL (Ref. 55).

## D. Cross Reference With HUD Regulations

EPA is finalizing modifications to 40 CFR 745.227(h) to clarify that the final DLAL would differ from the final DLRL, and that the Agency does not intend to compel LBP professionals to reduce dust-lead loadings all the way below the DLRL, just to below the DLAL. EPA is interested in alleviating any potential regulatory confusion surrounding clearance to the DLAL. HUD’s LSHR clearance regulations at 24 CFR 35.1340(d), which apply to both abatement and interim control and paint stabilization activities above HUD’s de minimis amount of disturbance of paint known or presumed to be lead-based paint at 24 CFR 35.1350(d), currently refer to 24 CFR 35.1320(b)(2). HUD’s regulations at 24 CFR 35.1320(b)(2) in turn cross-references EPA’s regulations at 40 CFR 745.227(h), which currently discusses EPA’s DLHS (described by EPA as DLRL moving forward) but not EPA’s DLCL (described by EPA as DLAL moving forward). See Unit III.A.3.f the 2019 Final Rule for additional background on this topic (Ref. 2). As explained earlier in this preamble, prompted by analysis conducted following the 2021 Court Opinion, EPA is finalizing a DLRL that is no longer the same value as the DLAL. As a result, EPA is amending the language at 40 CFR 745.227(h), so it is clear when referenced by the LSHR, that EPA does not intend to compel clearance below the DLRL, but below the DLAL, whether in federally assisted housing or not.

In the course of reviewing this amendment to 40 CFR 745.227(h), EPA realized that the regulation at 40 CFR 745.227(h)(2)(i) inadvertently refers to “dust hazard levels identified in [40 CFR] 745.227(b).” 40 CFR 745.227(b) actually addresses how to conduct an inspection and does not address dust hazard levels. Based on its context and the parallel language in 40 CFR 745.65(a)(1), the cross-reference in 40 CFR 745.227(h)(2)(i) was intended to refer to 40 CFR 745.65(b), which does identify what constitutes a dust-lead hazard. EPA has updated the cross-reference accordingly in order to remove any ambiguity.

## E. Definition of Abatement

EPA is finalizing amendments to the definition of abatement in EPA’s LBP activities regulations, specifically for dust-lead hazards, and thus modifying

the trigger for when EPA recommends an abatement. This change is a key element of the final rulemaking and is intended to align with the decoupling of the DLRL and DLAL, ultimately focusing the impacted entities' resources (e.g., HUD, city, State) on the situations that present the most risk while still identifying and disclosing lower levels of concern. EPA has narrowly focused the amendments on the portions of the definition that address dust-lead. The abatement definition still applies unchanged with respect to paint-lead and soil-lead. TSCA section 401(1) defines an abatement as "any set of measures designed to permanently eliminate lead-based paint hazards in accordance with standards established by the Administrator under [TSCA Title IV]" and includes "the removal of lead-based paint and lead-contaminated dust, the permanent containment or encapsulation of lead-based paint . . . and all preparation, cleanup, disposal, and post-abatement clearance testing activities associated with such measures." EPA included a definition of abatement, which closely resembles the statutory language, within the LBP activities regulations at 40 CFR 745.223. An abatement under the LBP activities regulations (40 CFR 745.223) is described as "any measure or set of measures designed to permanently eliminate lead-based paint hazards" and specifically includes "projects resulting in permanent elimination of lead-based paint hazards . . .".

The 2021 Court Opinion stated that "TSCA [Title] IV gives the EPA latitude to consider 'reliability, effectiveness, and safety'" when promulgating regulations "[w]ith respect to implementation, including abatement" (Ref. 9). In addition, the statutory definition of abatement in TSCA section 401(1) specifically references the elimination of hazards "in accordance with standards established by the Administrator under [TSCA Title IV]." Hence, in considering revising the DLAL as part of TSCA section 402's "standards for performing [LBP] activities," EPA must and has considered whether reliability, effectiveness and safety support changing the regulatory definition of abatement. Given that under this statutory scheme EPA only intends to compel post-abatement clearance to the final DLAL, the Agency is also changing the regulatory definition of abatement so that the recommendation for action applies when dust-lead loadings are at or above the DLAL (which continues to incorporate non-health-based factors

such as reliability), rather than at or above the hazard standards, described as DLRL moving forward, as has been the case historically (but which, going forward in accordance with the 2021 Court Opinion, can no longer incorporate non-health-based factors such as reliability). This revision is necessary due to the decoupling of the DLRL from the DLAL and EPA's desire to avoid situations where abatements are designed to eliminate dust-lead levels to the DLRL and are unable to do so in a reliable and effective manner. Otherwise, EPA would be recommending an abatement if dust-lead levels are between the DLRL and the DLAL, even though such an abatement would only need to attain dust-lead loadings below the DLAL. Also, where an abatement is conducted, a cyclical pattern could result, where an abatement could successfully pass clearance below the DLAL but an abatement would still have been recommended by EPA if dust-lead levels were at or above the DLRL. Thus, EPA is revising the regulatory definition to require that abatements eliminate dust-lead hazards to below the DLAL to ensure that successful abatements can be considered complete in accordance with this rule's updated standards. Relatedly, as explained in Unit IV.F., EPA is proposing amendments to the abatement report to help protect from exposure even after the abatement is complete.

An additional benefit to modifying the trigger for when EPA recommends an abatement is that it allows the regulated community to focus resources on situations that present more risk. As discussed in the 2001 and 2019 final rules, an important concern for EPA is having the resources for LBP hazard mitigation distributed so broadly that they may be diverted from situations that present the greatest risk.

As a result, EPA is changing the regulatory definition of abatement to permanently eliminate dust-lead hazards to below the DLAL. EPA concludes that this amendment to the regulatory definition most appropriately applies the statutory definition in the context of this rule, where the statute requires EPA to consider reliability, effectiveness, and safety for purposes of EPA's TSCA section 402 LBP activities regulations (including the DLAL). Furthermore, as noted earlier in this section, the statutory definition of abatement in TSCA section 401 states that the set of measures covered by the term are to be "in accordance with the standards established by the Administrator" under TSCA Title IV, which refers to the "standards for

performing [LBP] activities" as what EPA's TSCA section 402 regulations shall contain. Thus, EPA has concluded that the amended regulatory definition most appropriately implements the statutory instruction that abatement measures be "in accordance with" this rule's updated section 402 standards (notably, the revised DLAL). Note that nothing in this rulemaking changes the fact that owners of properties covered by the LBP Activities Rule are not compelled to evaluate their properties for the presence of dust-lead hazards, nor compelled by EPA to take action (such as an abatement) if dust-lead hazards are identified at or above the DLAL, although HUD and some State or local governments may require action.

#### F. Abatement Report

As explained in Units IV.A., B. and C., EPA is finalizing a nomenclature change to the terminology for the standards, and lowering the current DLRL to any reportable level as analyzed by an NLLAP-recognized laboratory. Additionally, EPA is finalizing the DLAL to 5 µg/ft<sup>2</sup>, 40 µg/ft<sup>2</sup>, and 100 µg/ft<sup>2</sup> for floors, window sills and troughs, respectively. The DLRL identify when pre-1978 housing or a COF has a dust-lead hazard present. Given this decoupling of the floor and sill values, it is likely that once a project passes clearance and the abatement can be considered complete, there could still be dust-lead hazards present due to the DLRL being any reportable level. The Agency realizes the challenge this creates for the regulated community and, to keep dust-lead levels down and mitigate exposure, EPA is proposing to amend the requirements for what needs to be included in an abatement report.

After the completion of an abatement, the certified supervisor or project designer is required to develop a report. The list of what needs to be included in the abatement report is described at 40 CFR 745.227(e)(10), and consists of elements such as the start and completion dates of the abatement, information about the risk assessor or inspector conducting the sampling, any post-abatement dust-lead testing and soil analyses, etc. EPA is modifying 40 CFR 745.227(e)(10) to include a requirement to add specific language into each abatement report, when dust-lead levels are between the DLRL and the DLAL. That language refers the public to a useful reference titled "*Protect Your Family From Lead in Your Home*" and acknowledges that LBP hazards (particularly dust-lead hazards) could remain after an abatement. The goal of including this language in an abatement report is to

ensure that occupants are provided with information about actions they can take to minimize dust-lead hazards and protect themselves from exposure even after an abatement is complete.

The certified firm (or individual who prepared the report) must keep the abatement reports for at least 3 years and must provide a copy to the individual or entity who “contracted for its services” (40 CFR 745.227(i)).

### G. Other Amendments

In order to conform the regulations to a statutory change, make several other amendments to improve efficiency of the program and make several regulatory text corrections, EPA is finalizing the amendments to 40 CFR part 745, subparts E (Residential Property Renovation), F (Disclosure of Known Lead-Based Paint and/or Lead-Based Paint Hazards Upon Sale or Lease of Residential Property), and L (Lead-Based Paint Activities).

#### 1. Definition of Target Housing

EPA is finalizing changes to the definition of target housing in 40 CFR 745.103 and 40 CFR 745.223 to align with the statutory changes made in 2017 and is making conforming edits to language in 40 CFR 745.223 and 40 CFR 745.227. Target housing defines which housing is subject to EPA’s LBP rules. Within section 237(a) through (c) of Title II of Division K of the Consolidated Appropriations Act, 2017 (Pub. L. 115–31, 131 Stat. 788 and 789), Congress amended HUD and EPA’s statutory definitions of target housing to include 0-bedroom dwellings if a child less than 6 years of age resides or is expected to reside in such housing (42 U.S.C. 4822(e); 42 U.S.C. 4851(b)(27); 15 U.S.C. 2681(17)). The change to the definition of target housing in 40 CFR 745.103 and 40 CFR 745.223 conforms to the statutory language by defining target housing as any housing constructed prior to 1978, except housing for older adults or persons with disabilities or any 0-bedroom dwelling (unless any child who is less than 6 years of age resides or is expected to reside in such housing). For consistency, EPA is also finalizing revisions to the definition of living area in 40 CFR 745.223 to change the age from 6 and under to less than 6 years of age. Similarly, language describing the age of children in 40 CFR 745.227(c)(2)(i), (c)(2)(iv), (c)(2)(v), (d)(3), (d)(5), and (d)(6)(ii) was updated from 6 years of age and under to under age 6 to conform to the statutory language as amended.

In the course of reviewing this amendment to 40 CFR 745.227(c)(2)(v), EPA realized that the regulation

inadvertently refers to a paragraph (c)(1)(iii) of the section when no such provision exists. Based on its context, this cross-reference in paragraph (c)(2)(v) was intended to refer to the floor and window samples required by the immediately preceding provision (*i.e.*, paragraph (c)(2)(iv)). EPA has updated the cross-reference accordingly in order to remove any ambiguity.

#### 2. Definition of Child-Occupied Facility (COF) and Living Areas

EPA is finalizing revisions to the definition of COF in 40 CFR 745.223 and related regulatory language in 40 CFR 745.227 to establish consistency throughout the LBP regulations. The LBP Activities regulations define COFs as buildings or portions of buildings, constructed prior to 1978, in which the same child regularly visits on at least two different days within any given week, with their visits lasting at least 3 hours with combined visits of at least 6 hours, and combined annual visits lasting at least 60 hours. COFs may include, but are not limited to, day-care centers, preschools and kindergarten classrooms. Living areas are defined as any area of a residential dwelling used by one or more children, which includes, but is not limited to, living rooms, kitchen areas, dens, play rooms, and children’s bedrooms. Currently, the definition of COF at 40 CFR 745.223 identifies children impacted by the LBP Activities regulations as age 6 and under, while the definition of COF in the RRP regulations at 40 CFR 745.83 identifies children impacted by the RRP regulations as under 6 years of age. In order to establish consistency in age throughout the LBP regulations, including with the definition of target housing and the RRP regulations’ definition of COF, EPA is finalizing the change to the language in the definition of COF in 40 CFR 745.223 to less than 6 years of age. Language describing the age of children in 40 CFR 745.227(d)(7) was also changed from 6 years of age and under to under age 6 to conform language throughout the LBP regulations.

#### 3. Electronic Submissions

EPA is finalizing the requirement for submissions for application payments, applications, and notices to be done electronically. This rule specifically defines “electronic” in 40 CFR 745.83 and 40 CFR 745.223 to mean “the submission of an application, payment, or notice using the Agency’s Central Data Exchange (CDX), or a successor platform.” In 2016, the U.S. Treasury Department changed their process so that paper checks would no longer be

allowed for payment of fees associated with RRP or abatement programs. Since that time, applications that require payment, such as individual and firm certifications as well as training provider accreditation applications, have been submitted electronically via CDX. Therefore, EPA is amending 40 CFR 745.89(a)(1), 40 CFR 745.92(c)(2), and 40 CFR 745.238(e)(2) to conform to the 2016 U.S. Treasury Department process and require payments to be made only electronically via CDX or a successor platform.

Currently there is no specific submission method defining how to submit applications in EPA’s LBP regulations. This ambiguity allows for the potential of written applications being submitted, which requires time consuming activities such as data entry and accrues administrative costs. Therefore, EPA is finalizing the amendments to 40 CFR 745.89(a)(1), (b)(1), (b)(1)(i), and (c)(1); 40 CFR 745.225(b)(1), (e)(5), (f)(2), and (j)(2); 40 CFR 745.226(a), (e), (f), and (h)(1)(iii); 40 CFR 745.227(e)(4)(vii) and 40 CFR 745.238(d), and (e) to reflect the requirement of submitting applications electronically via CDX or a successor platform. This will add further clarification and uniformity to this process.

Additionally, EPA is finalizing the requirement for abatement and training notifications to be submitted electronically via CDX or a successor platform. Requiring electronic submissions and eliminating fax submissions removes the need for fax machine maintenance and also reduces phone service costs. Therefore, EPA is finalizing their amendments to 40 CFR 745.225(c)(13)(vi) and (14)(iii) to require submission of abatement and training notifications to occur electronically via CDX or a successor platform.

#### 4. Disclosure Rule Warning Statement

EPA is finalizing the proposed update to the Disclosure Rule’s Lead Warning Statement in 40 CFR 745.113(b)(1) to address a drafting error. Both the preamble of the Disclosure Rule (required by section 1018 of Title X), and the relevant public sample form include the following language: “Before renting pre-1978 housing, lessors must disclose the presence of known lead-based paint and/or lead-based paint hazards in the dwelling,” which is consistent with EPA and HUD’s adaptation to leasing contracts of the statutory language in section 1018 (Ref. 4). However, the Lead Warning Statement in 40 CFR 745.113(b)(1) does not currently include the word “known.” To conform this regulatory

text with the statutory and preamble language, EPA is finalizing the amendment to the Lead Warning Statement to include the word “known” when discussing lessors disclosing the presence of LBP and/or LBP hazards in the dwelling.

#### 5. Disclosure Rule Reference

EPA is finalizing the proposed amendment to the Disclosure Rule at 40 CFR 745.113(a)(4) and 40 CFR 745.113(b)(4) to include the correct lead hazard information pamphlet reference, 15 U.S.C. 2686. This reference further discusses the requirements for the lead hazard information pamphlet and is the basis for its statutory authority. The current reference of 15 U.S.C. 2696 does not exist and was a drafting error.

#### 6. Definition of Housing for the Elderly

EPA is finalizing the proposed addition of the definition of “housing for the elderly” to 40 CFR 745.223 in order to clarify the term “elderly” used in the definition of “target housing,” also in 40 CFR 745.223. EPA already defines “housing for the elderly” in 40 CFR 745.103 as “retirement communities or similar types of housing reserved for households composed of one or more persons 62 years of age or more at the time of initial occupancy” under Subpart F, “Disclosure of Known Lead-Based Paint and/or Lead-Based Paint Hazards Upon Sale or Lease of Residential Property.” Note that HUD’s LSHR (for federally owned or federally assisted target housing) caveats its definition of “housing for the elderly” at 24 CFR 35.110 to rely on an age other than 62 years “if recognized as elderly by a specific Federal housing assistance program.” The finalized definition of “housing for the elderly,” which is the same definition in Subpart F “Disclosure of Known Lead-Based Paint and/or Lead-Based Paint Hazards Upon Sale or Lease of Residential Property,” adds clarity and consistency throughout the LBP program.

#### 7. Obsolete Regulatory Text

EPA is finalizing the proposed revisions and deleting obsolete regulatory text where language was out of date or no longer applicable in 40 CFR 745.81(a)(4)(i) and (b); 40 CFR 745.90(a)(3) and (4); 40 CFR 745.225(i)(2); and 40 CFR 745.226(f)(5). For example, 40 CFR 745.81(b) currently reads: “Before December 22, 2008, renovators or firms performing renovations in State and Indian Tribal areas without an authorized program may provide owners and occupants with either of the following EPA pamphlets: *Protect Your Family From*

*Lead in Your Home or Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools.* After that date, *Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools* must be used exclusively.” This information is outdated; therefore, EPA is finalizing this section to read: “After December 22, 2008, renovators or firms performing renovations in States and Indian Tribal areas without an authorized program must provide owners and occupants the following EPA pamphlet: *Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools.*” EPA is also deleting 40 CFR 745.227(a)(4) because EPA added the provision in the 1996 LBP Activities Rule and it became obsolete with the 2001 LBP Hazards Rule that first promulgated regulatory clearance levels. Other regulatory provisions now apply.

#### 8. Incorporation by Reference (IBR)

As proposed, EPA is also incorporating by reference two voluntary consensus standards, each of which is already included in the definition of “wipe sample” at 40 CFR 745.63: American Society for Testing and Materials (ASTM) E1728 and ASTM E1792. EPA is incorporating by reference the most recent version of each standard: ASTM E1728/E1728M–20, Standard Practice for Collection of Settled Dust Samples Using Wipe Sampling Methods for Subsequent Lead Determination, approved January 1, 2020; and ASTM E1792–20, Standard Specification for Wipe Sampling Materials for Lead in Surface Dust, approved September 1, 2020. ASTM E1728/E1728M–20 covers the collection of settled lead-containing dust on surfaces using the wipe sampling method. ASTM E1792–20 covers requirements for the wipes that are used to collect settled dust on surfaces for the subsequent determination of lead.

This material is reasonably available to interested parties. All approved incorporation by reference (IBR) material is available for inspection at EPA. Copies of the ASTM materials incorporated by reference in this rule may be obtained from ASTM International, 100 Barr Harbor Dr., P.O. Box C700, West Conshohocken, PA 19428–2959, or by calling (877) 909–ASTM, or at <https://www.astm.org>. If you have a disability and the format of these materials intended for incorporation by reference interferes with your ability to access the information, please contact EPA’s Rehabilitation Act section 508 (29 U.S.C. 794d) Program at <https://>

[www.epa.gov/accessibility/forms/contact-us-about-section-508-accessibility](https://www.epa.gov/accessibility/forms/contact-us-about-section-508-accessibility) or via email at [section508@epa.gov](mailto:section508@epa.gov). To enable us to respond in a manner most helpful to you, please indicate the nature of the accessibility issue, the web address of the requested material, the format you prefer to receive the material in (electronic format (ASCII, etc.), standard print, large print, etc.), and your contact information.

### V. Implications of the Final Rule for Existing HUD and EPA Programs

#### A. LBP Activities Authorized Programs

This subsection (Unit V.A.) is specifically relevant to any States, territories or federally recognized Tribes that are authorized to administer their own LBP activities program. Pursuant to TSCA section 404 and EPA’s regulations at 40 CFR part 745, subpart Q, interested States, territories, and federally recognized Tribes may apply for and receive authorization to administer their own LBP activities programs (as briefly described in Unit II.C.), as long as their programs are at least as protective of human health and the environment as EPA’s program, and provide adequate enforcement.

As part of the authorization process, States, territories, and federally recognized Tribes must demonstrate to EPA that they meet the requirements of the LBP Activities Rule. Additionally, a State, territory, or federally recognized Tribe must demonstrate that it meets any new requirements imposed by this rulemaking in its application for authorization or, if already authorized, in a report submitted under 40 CFR 745.324(h) no later than two years after the effective date of the new requirements (which in this case would be by January 11, 2027). If an application for authorization has been submitted but not yet approved, the State, territory, or federally recognized Tribe must demonstrate that it meets the new requirements either by amending its application, or in a report it submits under 40 CFR 745.324(h) no later than two years after the effective date of the new requirements (40 CFR 745.325(e)). EPA recommends that the authorized programs work closely with their EPA regional office in order to keep the Agency up to date on their progress.

Given the breadth and nature of the revisions in this final rule, in particular those to the dust-lead reportable level, the definition of abatement and the shift in terminology, EPA recommends all authorized States, territories and federally recognized Tribes broadly review their LBP activities programs

and consider more significant changes such as any triggers for work using the dust-lead action level rather than the dust-lead reportable level (or historically the dust-lead hazard standards). For example, if there is a program that requires LBP professionals to do a risk assessment every time a property is rented by a new tenant, instead of requiring that dust-lead loadings must be less than the dust-lead reportable level, EPA recommends that the authorized program in question utilizes the dust-lead action level instead. It will be important to disclose that dust-lead hazards are present above any reportable level (as analyzed by an NLLAP-recognized laboratory) but EPA does not recommend action such as an abatement when there are dust-lead loadings below the dust-lead action level. Changing the trigger for work within authorized programs could considerably reduce the financial burden that this final rulemaking may have on entities funding the work in those authorized States, territories and Tribes, including the local level and more specifically those environmental and health departments that assist in running these programs. EPA does, however, recommend use of best practices such as: using a vacuum with a high-efficiency particulate air filter on furniture and other items returned to the work area, and regularly cleaning hard surfaces with a damp cloth or sponge and a general all-purpose cleaner when any dust-lead hazard or LBP is present, even if it is below the dust-lead action level. For more information on how to continue to reduce lead exposure see *Protect Your Family From Lead in Your Home*.

As authorized States, territories and federally recognized Tribes broadly review their LBP activities programs, EPA also recommends reconsideration of the terminology of any lead-free or lead-safe programs, as this language could cause confusion or be an oversimplification. If dust-lead levels fall above the DLRL, a LBP hazard, specifically a dust-lead hazard, can be present after an abatement is considered complete even in situations where a house or COF is considered LBP free (*i.e.*, below the regulatory definition of LBP). Ultimately, target housing or COFs that are considered LBP free could still contain lead or even LBP hazards, particularly dust-lead hazards given the DLRL. Also, if target housing or COFs are found to be free of LBP hazards (*e.g.*, dust-lead levels below the DLRL) that does not mean that no lead is present. As a result, identifying lead-free or lead-safe housing/COFs given these final

revisions to the DLRL will be extremely challenging and could cause confusion or misunderstanding within the public. EPA also recommends any triggers for action become the DLAL (rather the DLHS, described as DLRL moving forward, as has been the case historically). EPA suggests that authorized programs work closely with their EPA regional office as needed to help inform this process, as an authorized program must demonstrate that it meets the new requirements imposed by this final rule in a report submitted under 40 CFR 745.324(h) by January 11, 2027.

#### *B. HUD Programs*

##### 1. Lead-Safe Housing Rule

HUD has specific authority to control LBP and LBP hazards in certain federally owned and federally assisted target housing (Ref. 24). HUD's regulations at 24 CFR 35.1320(b)(2) cross-reference EPA's regulations at 40 CFR 745.227(h), which currently discusses EPA's DLHS but not EPA's DLCL (described by EPA moving forward as DLRL and DLAL). Due to the current cross-reference, the HUD regulations have been read as requiring entities receiving government funding currently to conduct post-abatement clearance until the levels are below EPA's DLHS, which at the time this cross-reference was made, were the same values as EPA's DLCL. Clearance testing is also required following interim controls and renovation, repair, and painting events that incidentally disturb more than the HUD-specified de minimis amount of lead-based paint in assisted housing. Due to the 2021 Court Opinion, EPA is now finalizing regulatory changes that decouple the DLHS and DLCL and rename them as DLRL and DLAL as explained in Unit IV. EPA is also finalizing modifications to 40 CFR 745.227(h) to clarify that the Agency does not intend to compel clearance down to the DLRL but to the DLAL, including for HUD's programs. EPA has taken this action for the reasons discussed in Unit IV.D. of this notice. HUD plans to conduct a rulemaking to make its determination on any appropriate amendments under its own regulations.

Other impacts of this final rule could include a possible decrease in the number of landlords participating in HUD's rental assistance and rehabilitation programs. If there are fewer homes that can meet the revised dust-lead standards at costs and project durations acceptable to landlords, there will be fewer affordable housing units available to families to rent. For

example, if a family with a Housing Choice Voucher cannot find a landlord that can attain dust-lead levels below the revised DLAL (previously referred to as the dust-lead clearance levels) and accept their voucher, they will have longer search times. In some cases, the family may lose their voucher if they are unable to find a unit within established timeframes, and they will have to revert back to unassisted housing, attempting to rent housing without rental assistance, which has been shown to be associated with a higher prevalence of LBP hazards (Refs. 71 and 113) and higher BLLs (Ref. 114). However, the Economic Analysis that accompanies this final rulemaking estimates that only a small fraction of low-income households living in housing subject to LSHR Subpart M (which affects the Housing Choice Vouchers discussed in the text) are likely to lose their assisted housing and ultimately end up in private market housing that is higher cost and/or has dust-lead levels higher than their baseline. See Section 10.3 of the EA (Ref. 10) for more information. Note that the factors that EPA can consider in setting the DLHS (described as DLRL moving forward) do not include broader public health concerns (such as health trade-offs and policy impacts on public Federally assisted housing).

As discussed in Unit II.A., lead exposure, even in small amounts, can cause substantial and long-lasting health problems, particularly through its effects on children's development. Access to secure housing is also an important social determinant of health (Ref. 74). Research finds negative health effects resulting from three key mechanisms of housing insecurity: lack of housing affordability leading to stress and material deprivation (Refs. 75, 76, 77 and 78), lack of housing stability (Refs. 79, 80, 81, 82 and 83), and lack of safe and adequate housing (Refs. 84, 85, 86, 87 and 88). HUD's housing assistance programs play a critical role in helping nearly 5 million households (Ref. 115) avoid housing insecurity and its harmful effects on physical and mental health (Refs. 114, 116, 117, 118 and 119). Despite such Federal assistance, the nation faces a critical shortage of affordable rental housing affecting about 8 million very low-income households (Ref. 120). EPA considered the final changes to the DLRL and DLAL and the potential impacts on HUD's housing programs within the EA (see Section 10.3 for this discussion) (Ref. 10). Existing research on landlord participation in the Housing Choice Voucher program (Refs. 121,

122, 123 and 124) suggests that more stringent standards or uncertainty as to how to meet those standards could be a disincentive for private target housing providers to participate in HUD's rental assistance programs including the Housing Choice Voucher program (tenant-based rental assistance program) and the project-based assistance programs, which could in turn reduce access to affordable and stable housing associated with a relatively lower prevalence of LBP hazards than unassisted housing. As a result, EPA requested information and comment on whether the proposed rulemaking would lead to an increase in housing insecurity or lead exposures. EPA received multiple public comments that expressed concern over housing stock, in particular affordable housing, and that highlighted the negative consequences that the revised standards could lead to an increase in lead exposure due to less lead projects being done overall due to less available funds. As a result, EPA is finalizing the higher, alternative DLAL (previously referred to as the DLCL), the language in the abatement report for when post-abatement dust-lead levels falls between the DLRL and DLAL, as well as the change to the definition of abatement, so that abatement is triggered based on the DLAL rather than the DLRL; see Unit IV.C., E., and F for more information on the final DLAL, the revisions to the abatement report, and the definition of abatement. EPA is also committed to working closely with HUD for communicating these changes to the regulated community, in order to best reduce and diminish any impact this final rule could have on the availability of affordable housing for families.

As explained in section 10.3 of EPA's Economic Analysis for the rule (Ref. 10), the owners of properties regulated under some of the LSHR Subparts seem unlikely to stop participating in HUD programs as a result of this rule. For example, Subpart F of the LSHR covers HUD-owned single family housing properties for sale that are sold under a HUD mortgage program. HUD (*i.e.*, the Federal government) would be responsible for all costs associated with compliance to a stricter DLRL/DLAL before selling the property. While modest delays may occur in closing on sale transactions for these properties, a reduction in housing supply covered under this subpart is unlikely. Subpart G of the LSHR covers multi-family housing where either HUD is the owner of a mortgage, or the owner of a property receives mortgage insurance under a program run by HUD. Housing covered

under this subpart of the LSHR has risk assessment, interim control, and LBP maintenance requirements. Private landlords for these properties directly seek out Federal funds, and even if some of the federally provided money is spent complying with a stricter DLRL/DLAL to comply with the LSHR, participating grantees should typically have a positive net return. These landlords can opt-out of HUD mortgage assistance, by finding alternative financing or selling the property. Once the property opts out, the families must move unless they can afford market-rate rents, which is unlikely. Owners can also elect to not renew their Housing Assistance Payment contract upon expiration. HUD has suggested that the largest impact from changing the DLRL/DLAL will likely be HUD's tenant-based rental assistance programs. Under Subpart M of the LSHR, if an inspector identifies deteriorated paint in a unit with a child under age 6, they must perform paint stabilization and meet clearance for the unit to be eligible for housing assistance payments. A landlord faced with this option could decline to perform the work, and rent instead to a family without a voucher. This is an unintended consequence that may be magnified by the new clearance standard, and HUD will seek comment on this potential impact before it finalizes changes to the LSHR to implement the new DLRL/DLAL standards.

## 2. Grantee Programs

On February 16, 2017, HUD issued policy guidance to establish new and more protective requirements for dust-lead action levels for its Lead-Based Paint Hazard Control and Lead Hazard Reduction Demonstration grantees (the requirements also apply to related HUD grants authorized by Title X, section 1011 (42 U.S.C. 4852), under similar names, including Lead Hazard Reduction grants and their High Impact Neighborhoods and Highest Lead-Based Paint Abatement Needs grant categories) (Ref. 58). The guidance adopted dust-lead action levels of 10  $\mu\text{g}/\text{ft}^2$  for floors and 100  $\mu\text{g}/\text{ft}^2$  for window sills, respectively, for initiating lead hazard control activities under these grant programs, and lead clearance action levels of 10  $\mu\text{g}/\text{ft}^2$  for floors, and 100  $\mu\text{g}/\text{ft}^2$  for window sills and troughs, respectively, for clearing such lead hazard control activities (Ref. 58). Given the revisions of this final rule that are discussed in Unit IV., Lead-Based Paint Hazard Control and Lead Hazard Reduction Demonstration grantees would be required by EPA's regulations to clear lead abatement projects to the

updated DLAL of 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$  for floors, window sills, and troughs respectively. Due to the changes EPA is finalizing, HUD has informed the Agency that it will likely issue new policy guidance on initiating lead hazard control activities and on clearing lead abatement projects under these grant programs, and that it would consider issuing new policy guidance on clearing interim control projects under these grant programs.

## 3. EPA-HUD Disclosure Rule

To administer the disclosure program, EPA and HUD jointly developed regulations (known as the Disclosure Rule under section 1018 of Title X (42 U.S.C. 4852d)) requiring a seller or lessor of most pre-1978 housing to disclose the presence of any known LBP and/or LBP hazards, such as soil-lead hazards or dust-lead hazards, to the purchaser or lessee (24 CFR part 35, subpart A; 40 CFR part 745, subpart F). Under the Disclosure Rule (Ref. 4), prospective sellers and lessors of target housing, which is most pre-1978 housing, must provide purchasers and renters with a federally approved lead hazard information pamphlet and disclose known LBP and/or LBP hazards, and any available records, reports, and additional information pertaining to LBP and/or LBP hazards (40 CFR 745.107(a)(4); 24 CFR 35.88(a)(4)). Leases of target housing are exempt from disclosure requirements in limited circumstances, such as where the housing has been found to be LBP free by a certified inspector (24 CFR 35.82; 40 CFR 745.101).

The information disclosure activities are required before a purchaser or renter is obligated under a contract to purchase or lease target housing. The records or reports pertaining to LBP and/or LBP hazards include, among other things, results from risk assessments, regardless of whether the levels of dust-lead are above or below the dust-lead hazard standards (described by EPA as DLRL moving forward), and from post-abatement dust wipe testing, above or below the clearance levels (described by EPA as DLAL moving forward). Because disclosure is required in target housing regardless of whether dust levels are above or below the DLRL or DLAL, finalizing the "any reportable level" approach for the dust-lead reportable level and lowering the dust-lead action level would not result in more disclosures; rather it would result in more of the disclosures indicating that a lead-based paint hazard is present (since the final DLRL is lower than the previous DLHS from 2019). EPA is also finalizing changes to the definition of



“target housing” (40 CFR 745.223), which expands the universe of housing subject to the Disclosure Rule requirements. This is reflective of a change to the statutory definition (P.L. 115–37, Consolidated Appropriations Act, 2017, Division K, Title II, section 237(c)). This final conforming change to the regulatory definition of target housing to include 0-bedroom dwellings where a child resides may slightly increase the number of disclosures issued.

Note that leases (which does not include sales) of target housing are exempt from disclosure requirements in limited circumstances, such as where the housing has been found to be LBP free by a certified inspector (24 CFR 35.82; 40 CFR 745.101), even if the dust-lead level is at or above the DLRL.

#### 4. HUD Guidelines

The HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing ([https://www.hud.gov/program\\_offices/healthy\\_homes/lbp/hudguidelines](https://www.hud.gov/program_offices/healthy_homes/lbp/hudguidelines)) were developed in 1995 under section 1017 of Title X. The Guidelines provide detailed, comprehensive, and technical information on how to identify LBP hazards in residential housing and COFs, and how to control such hazards safely and efficiently. The Guidelines were revised in 2012 to incorporate new information, technological advances, and new Federal regulations, including EPA’s LBP hazard standards. Due to the changes EPA is finalizing, HUD has informed the Agency that it will likely revise Chapter 5 of the Guidelines on risk assessment and reevaluation, Chapter 12 on abatement, and Chapter 15 on clearance, and make conforming changes elsewhere as needed (Ref. 125).

#### C. EPA LBP Programs

##### 1. LBP Activities Rule

LBP activities include risk assessments, inspections, and abatements. As a reminder, the States where the LBP program is currently administered by EPA are Alaska, Arizona, Florida, Idaho, Montana, Nevada, New Mexico, New York, South Carolina, South Dakota, and Wyoming. EPA also administers the LBP program in the territories of American Samoa, Guam, Northern Marianas, and the U.S. Virgin Islands, as well as most Tribal Lands. This final rule impacts a variety of LBP activities, including: the definition of abatement, what is considered a dust-lead hazard, the DLAL (which is used to determine whether an abatement can be considered complete) and the definition

of target housing. Within the States, territories and federally recognized Tribes that have EPA run LBP activities programs, this rule will become effective 60 days after publication in the **Federal Register**. However, certain elements of the rule such as the DLRL, DLAL and the change to the abatement report language have a compliance timeframe of one-year after the effective date of the final rule (see Unit VI. for more information on the timing of this rule’s revisions).

As stated earlier in this preamble, EPA’s risk assessment work practice standards provide the basis for risk assessors to determine whether LBP hazards are present in target housing and COFs. As part of a risk assessment, dust samples are taken from floors and window sills to determine if dust-lead levels exceed the DLRL. The results of the sampling, among other things, are documented in a risk assessment report, which is required under the LBP Activities Rule (Ref. 19). In addition to the sampling results, the report must describe the location and severity of any dust-lead hazards found and describe interim controls or abatement measures needed to address the hazards.

Under this final rule, sampling results reporting any level of lead as analyzed by an NLLAP-recognized laboratory will indicate that a dust-lead hazard is present on the surfaces tested. EPA expects that the DLRL will result in more hazards being identified in a portion of target housing and COFs that undergo risk assessments. This rule does not change any other risk assessment requirements; however, it does revise the definition of abatement, which is discussed in the following paragraph.

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 change to the definition of abatement shifts the recommendation for an abatement based on dust-lead to when the dust-lead loadings are at or above the DLAL (rather than the DLHS, described as DLRL moving forward, as has been the case historically). Because EPA is finalizing DLAL that 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. In particular, when dust-lead loadings are at or above the DLRL, but below the DLAL, EPA recommends use of best practices such as: using a vacuum with a high-efficiency particulate air filter on furniture and other items returned to the work area, and regularly cleaning hard surfaces with a damp cloth or sponge and a general all-purpose cleaner. EPA is also including a requirement to add specific language into each abatement report when dust-lead levels are between the DLRL and the DLAL. That language refers the public to a useful reference titled *Protect Your Family From Lead in Your Home* and acknowledges that LBP hazards (particularly dust-lead hazards) could remain after an abatement. The goal of including this language in an abatement report is to ensure that occupants are provided with information about actions they can take to minimize dust-lead hazards and protect themselves from exposure even after an abatement is complete. Similar to abatement, EPA recommends interim controls only in circumstances when dust-lead loadings are at or above the DLAL, rather than the DLRL, for the reasons explained in this unit.

After LBP abatements are conducted, EPA’s regulations require a certified inspector or risk assessor to conduct post-abatement dust wipe testing of the abated area. If the dust wipe sample results show dust-lead loadings equal to or exceeding the applicable DLAL, “the components represented by the failed sample shall be recleaned and retested.” See 40 CFR part 745.227(e)(8)(vii). In other words, the abatement is not complete until the dust wipe samples in the work area are below the DLAL. Once the relevant compliance deadline has passed, inspectors and risk assessors working in any State, territory or federally recognized Tribe with an EPA run LBP activities program must compare dust wipe sampling results for floors, window sills and troughs to the revised DLAL of 5 µg/ft<sup>2</sup>, 40 µg/ft<sup>2</sup>, and 100 µg/ft<sup>2</sup>, respectively. Dust wipe sampling results at or above the DLAL would indicate that the components represented by the sample must be recleaned and retested. Due to lowering the DLAL from the 2021 levels, including the trough values, EPA expects a slight increase in the amount of recleaning and retesting that is required after an abatement in order for it to be considered complete, especially shortly after the change is enacted.

Lastly, as described in Unit IV.G.1., this final rule conforms the regulatory definition of target housing with the statute to include any 0-bedroom

dwellings constructed prior to 1978 if a child less than 6 years of age resides or is expected to reside in such housing, which could increase the number of homes covered by this regulation. In addition, EPA is finalizing regulatory changes to adjust the age requirements from 6 years of age and under, to under age 6 for the definition of target housing, COFs and living area, which could reduce the number of homes and COFs covered by this regulation; see Units IV.G.1. and 2. for more information.

States, territories, and federally recognized Tribes that are authorized to run their own LBP activities programs will also need to incorporate these Federal changes into their statutory and regulatory landscape no later than two years after the effective date of this final rule. See Unit V.A. for more information about the impacts of this action on authorized programs.

## 2. Previous LBP-Related Activities

Since the DLRL do not compel specific EPA actions, revisions to the DLRL would not in and of themselves compel any actions under the LBP Activities Rule, retroactively or otherwise, but actions would be compelled under other laws or regulations, including HUD's LSHR and possibly those of some State, local, Tribal or territorial governments. Inspection reports and risk assessments describe conditions at a specific time. A report that indicates no presence of LBP and/or a LBP hazard should not imply the absence of those conditions in perpetuity. Additionally, the DLRL may be incorporated into requirements mandated by State, Federal, Tribal, and other programs that may require actions based on the revised DLRL. Those other authorities may want to consider guidance or other communications with their regulated communities, so those entities understand how to comply with the various programs that reference the DLRL. As a reminder, all new requirements imposed by this final rule must be incorporated into any authorized programs no later than two years after the effective date of the new requirements (see Unit V.A. for more information).

The DLAL, however, are used to evaluate the effectiveness of a cleaning following an abatement. After the dust wipe samples show dust-lead loadings below the DLAL (and any other aspects of the abatement such as additional testing are also complete), an abatement report is prepared, copies of any reports required under the LBP Activities Rule are provided to the building owner (and to potential lessees and purchasers under the LBP Disclosure Rule by those

building owners or their agents), and all required records are also retained by the abatement firm or by the individuals who developed each report. The final DLAL of 5 µg/ft<sup>2</sup> for floors, 40 µg/ft<sup>2</sup> for window sills, and 100 µg/ft<sup>2</sup> for troughs would not impose retroactive requirements on regulated entities that have previously performed post-abatement clearance. These updated DLAL would only apply to post-abatement dust-lead sampling and analysis conducted after the compliance date for that portion of the final rule (*i.e.*, one year after the effective date of the final rule) for any LBP activities programs specifically run by EPA, which include, as of the publication of this rule: Alaska, Arizona, Florida, Idaho, Montana, Nevada, New Mexico, New York, South Carolina, South Dakota, Wyoming, American Samoa, Guam, Northern Marianas, and the U.S. Virgin Islands, as well as most Tribal Lands.

In addition, this rulemaking does not impose retroactive requirements to regulated entities that have previously complied with the Disclosure Rule. In accordance with 40 CFR 745.107, a seller or lessor generally must properly disclose any available records or reports pertaining to known LBP and/or LBP hazards before the purchaser or lessee is obligated under any contract to purchase or lease target housing. The seller or lessor is not required to disclose reports or records that may be created in the future, after the close of that transaction. Additionally, any LBP-free certification that was issued by a certified inspector and was issued before the effective date of this rulemaking, is still valid going forward and may continue to be used for exemption of leases from the Disclosure Rule under 40 CFR 745.101(b), as will any LBP-free certification issued on or after the effective date of this rulemaking.

## 3. Renovation, Repair, and Painting Rule

The DLRL and DLAL would not trigger new requirements under the existing RRP Rule (40 CFR part 745, subpart E). The existing RRP work practices are required where LBP is present (or assumed to be present) and are not predicated by dust-lead loadings exceeding the DLRL. The existing RRP regulations do not require dust-lead sampling prior to or at the conclusion of a renovation and are not affected by a change to the DLRL or DLAL. Therefore, RRP regulations will not be directly affected by the final revisions to the DLRL or the DLAL. However, certified renovators and RRP firms should be aware of the conforming amendments to

the definition of "target housing" and the amendments for consistency about electronic payments.

The RRP Rule does require specific post-renovation cleaning verification under 40 CFR 745.85(b), but the rule does not require dust wipe sampling and analysis using the DLAL. EPA received several public comments pointing out that there are many more homes and projects that fall under the RRP program (*i.e.*, rather than the LBP activities program), and that the visual inspection is less rigorous than clearance, requesting that EPA expand lead clearance testing to its RRP program. EPA notes that although optional under the RRP Rule, dust wipe sampling for clearance using the DLAL (previously known as the DLCL) in accordance with the LBP Activities Rule (40 CFR 745.227(e)(8)) may be required by contract or by another Federal, State, territorial, Tribal, or local law or regulation. At this time, other than HUD's Lead Safe Housing Rule, for renovations of assisted target housing, EPA is not aware of other laws and regulations that require clearance testing using EPA's DLAL.

EPA understands that the RRP program is larger than the LBP activities program; however, the LBP activities program (*i.e.*, inspections, risk assessments, and abatements) is focused more specifically on addressing a LBP concern, such as due to non-EPA requirements triggered by a child with a higher BLL. Additionally, besides the conforming amendment to the definition of "target housing," amendments for consistency about electronic payments, the removal of time-expired provisions (as discussed in Unit IV.G.), and the conforming terminology change at 40 CFR 745.85(c)(3) to refer to the final dust-lead action levels for optional RRP clearance testing, no other changes to the RRP program were included in the proposed rule that published in August 2023 (Ref. 55) or within this final rulemaking. Additionally, in 2018 EPA reviewed the RRP rule pursuant to section 610 of the Regulatory Flexibility Act and reaffirmed the Agency's previous conclusions not to include dust-wipe testing or clearance requirements on renovations. However, since 2018 the clearance or dust-lead action levels have been revised twice. While EPA is finalizing no additional changes to clearance or the cleaning verification process for RRP in this rulemaking, the Agency may consider whether to revise the RRP program at a later date.

Finally, certified renovators and RRP firms should be aware of the change in

the definition of target housing to include 0-bedroom dwellings if a child less than 6 years of age resides or is expected to reside in such housing. Any certified renovators or RRP firms should be aware of whether they work in an EPA-administered RRP program State, territory, or federally recognized Tribe or a State, territory, or federally recognized Tribe that is authorized to run its own RRP program, as this will impact the timing for the revisions to the definition of target housing. For any EPA-administered programs, this amendment to target housing will be effective 60 days after this final rule is published in the **Federal Register**. Any authorized program will have up to two years after the effective date of this rule to incorporate any changes into their program, so RRP professionals should be aware those changes will eventually be incorporated.

#### 4. Laboratory Quality Standards for Recognition

As discussed previously in Unit II.C., NLLAP is an EPA program under which an accrediting organization assesses whether a paint chip, dust, or soil testing laboratory meets minimum standards for laboratory analysis to attain EPA recognition as an accredited lead testing laboratory (<https://www.epa.gov/lead/national-lead-laboratory-accreditation-program-nllap>). Laboratories and other testing firms recognized under NLLAP follow the LQSR. This rulemaking does not modify the minimum standards outlined in the latest LQSR version 4.0. However, changes to the action level (*i.e.*, the proposed DLAL) would impact the quantitation limit that NLLAP-recognized laboratories would attain to participate in the NLLAP, as under LQSR 4.0 the quantitation limit must be equal to or less than 80% of the lowest action level for dust wipe samples per specific surface area (*i.e.*, floors, window sills, window troughs) (Ref. 26). The lowest action level for dust wipe samples would be the DLAL of 5 µg/ft<sup>2</sup> for floors, 40 µg/ft<sup>2</sup> for window sills and 100 µg/ft<sup>2</sup> for troughs. As a result, the quantitation limit for NLLAP-recognized labs would be equal to or less than 4 µg/ft<sup>2</sup> for floors, 32 µg/ft<sup>2</sup> for window sills and 80 µg/ft<sup>2</sup> for troughs. Note that only laboratories that are NLLAP accredited can perform dust-wipe testing for lead under the existing regulations at 40 CFR part 745.

#### D. Lead-Based Paint Professionals

LBP activities (*i.e.*, inspections, risk assessments, and abatements) may only be performed by a certified individual or firm (40 CFR 745.220) in accordance

with the work practices outlined in the 1996 LBP Activities Rule (40 CFR 745.227). Any certified risk assessor, inspector or abatement firm should understand if they are performing LBP work in an authorized State, territory, or federally recognized Tribe or if they are working within an EPA administered LBP activity program, as it will impact the timing of when they need to comply with the revisions of this final rule. A certified LBP professional working within the jurisdiction of an EPA-administered LBP activity program (*i.e.*, at the time of publication of this notice, Alaska, Arizona, Florida, Idaho, Montana, Nevada, New Mexico, New York, South Carolina, South Dakota, Wyoming, American Samoa, Guam, Northern Marianas, the U.S. Virgin Islands, and within most Tribal Lands) should see Unit VI. for more information on the effective date and compliance timeframes for this rule. Those LBP professionals should also familiarize themselves with Unit IV. of this final notice in order to fully understand the revisions. If questions remain, LBP professionals may wish to coordinate with their EPA Regional Lead Coordinator as necessary, consult the EPA lead page (<https://www.epa.gov/lead>), or contact the technical person or the National Lead Information Center listed under **FOR FURTHER INFORMATION CONTACT** if needed. Note that HUD or local jurisdictions may have slightly different requirements, so when applicable, EPA recommends coordinating directly with those specific programs, in order to avoid any confusion and to best understand how these rule changes will impact risk assessments, LBP inspections, and abatement work.

In contrast, any LBP professionals that work within a State, territory or federally recognized Tribe that has an EPA-authorized LBP activity program, should be aware that the authorized program will need to incorporate these Federal changes into their statutory and regulatory landscapes no later than two years after the effective date of this rule. As a result, LBP professionals should be mindful of and monitor any changes to the LBP programs within their State, territory or Tribe. See Unit V.A. for more information about the impacts of this action on authorized programs.

EPA received numerous public comments on the proposed rule requesting additional outreach and assistance throughout the implementation process in order to better communicate with the public about what the revisions are and how they impact various segments of the regulated community. Commenters

urged EPA provide clear and accessible information in multiple languages regarding the general risks of lead exposure, the implications of this rulemaking for renters and property owners, and information regarding financial or other support available for the cleanup and removal of lead. EPA appreciates the need for clear and effective communication given the shift these revisions are triggering in the LBP activities programs (*i.e.*, decoupling the DLRL and DLAL). As a result, EPA plans to coordinate closely with its communications teams, HUD and others to effectively update the public and the regulated community as appropriate, including revising *Protect Your Family From Lead in Your Home*, and any other EPA LBP trainings or public materials. EPA also plans on holding public webinars shortly after the rule is finalized in the **Federal Register**. LBP professionals should utilize any updated materials as they become available, and EPA welcomes their participation in any upcoming public webinars or educational opportunities.

#### VI. Effective and Compliance Dates

EPA has considered both the public comments received on the proposed rulemaking and the impacts of the DLRL and DLAL on NLLAP-recognized laboratories, and is finalizing a compliance timeframe of one year after the effective date of the final rule for certain provisions (*i.e.*, DLRL, DLAL, and the change to the abatement report language). The compliance date for these provisions is on January 12, 2026. This extended compliance date is intended to provide a reasonable amount of time for NLLAP-recognized laboratories to take actions to meet the LQSR quantitation limit (80% of the lowest action level for dust wipe samples under LQSR 4.0) for the lower DLAL of this rule so they can continue providing dust wipe testing services to the regulated community without any significant disruption in service, including in urgent situations.

To obtain a better understanding of laboratories' capability and capacity for dust wipe testing, EPA conducted teleconferences with eighteen NLLAP-recognized laboratories over the course of the rulemaking process (Refs. 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108 and 109). As explained in Unit IV.C., based on the information EPA received from this outreach, EPA believes that laboratories with ICP-AES instruments and optimized methods should be able to comfortably satisfy the LQSR dust wipe testing procedures and the regulatory limit of the final DLAL option of 5 µg/

ft<sup>2</sup> for floors, 40 µg/ft<sup>2</sup> for window sills and 100 µg/ft<sup>2</sup> for troughs (quantitation limit of 4 µg/ft<sup>2</sup> for floors, 32 µg/ft<sup>2</sup> for window sills and 80 µg/ft<sup>2</sup> for troughs). However, FAAS is the most ubiquitous equipment used, and EPA believes that with the LQSR 4.0 dust-wipe procedures partnered with the final DLAL, NLLAP-laboratories should be able to continue using FAAS after this rule is finalized. Some laboratories may need to buy newer FAAS to meet the lower LQSR limits or adjust their methods. However, due to the outreach performed, EPA is aware of laboratories that already utilize FAAS and are currently able to meet the final DLAL without any modification. A few NLLAP-laboratories may still opt to buy more sensitive instruments such as ICP-AES. If that is the case, however, the accreditation process through the accrediting bodies is time consuming and could take anywhere from six to eighteen months or more based on feedback EPA received from NLLAP-laboratories. Given the range of timing and that EPA assumes the majority of laboratories will retain FAAS, EPA determined one year from the effective date was appropriate as a compliance date for the amended DLRL and DLAL (*i.e.*, 14 months from the publication of the final rule).

Several public commenters, including State and local government agencies and a mass mailer that consisted of a coalition of 76 organizations and twelve individuals, agreed with the NLLAP-laboratories that if the proposed DLAL of 5 µg/ft<sup>2</sup>, 40 µg/ft<sup>2</sup>, and 100 µg/ft<sup>2</sup> for floors, window sills, and troughs was adopted in the final rule, the compliance timeframe of one-year after the effective date would be an adequate time for laboratories and companies to buy any needed equipment, hire staff, and become accredited, especially since the AIHA LAP's policy states that accreditation is expected to occur within 12 months or less once an application is submitted (Refs. 38 and 126). Public commenters also believed that the one-year compliance timeframe would allow enough time for laboratories, inspectors, contractors, and State and local programs to complete trainings for testing larger surface areas, update the standards and specification documents managed by ASTM Technical Committees, and allow HUD to update its guidelines. Commenters who requested a compliance timeframe of 2+ years were almost exclusively discussing it in relation to if EPA adopted the proposed primary DLCL of 3 µg/ft<sup>2</sup>, 20 µg/ft<sup>2</sup>, and 25 µg/ft<sup>2</sup> for floors, window sills, and troughs (Ref.

38). As a result, EPA is finalizing a one-year compliance date for the DLRL, DLAL, and the abatement report language revisions (which directly pertains to the final standards). The Agency is also interested in revising both standards at the same time to reduce any confusion and avoid any concerns within the regulated community that may be caused by staggering the DLRL and the DLAL compliance dates. EPA believes that since the DLRL are non-static, which is different than they have been historically, and as the program is shifting to the DLAL becoming the "action level" for the LQSR, it is important to allow ample time for the regulated community to adapt to the revised DLRL and DLAL. Additionally, if the DLRL compliance date occurred before the DLAL compliance date, EPA is concerned it might trigger unnecessary confusion for laboratories.

#### VII. Severability

EPA intends that each provision of this rulemaking be severable, with one exception identified below. In the event of litigation staying, remanding, or invalidating a portion of EPA's amendments in this rule, EPA intends to preserve the amendments for all other portions of the rule to the fullest extent possible. The Agency evaluated each issue on its own merits and EPA's amendments (with the one exception identified below) function independently from one another. Further, the Agency crafted this rule so that different regulatory decisions are reflected in different provisions or elements of the rule that are capable of operating independently. Accordingly, the Agency has organized the rule so that if any provision or element of this rule is determined by judicial review or operation of law to be invalid, that partial invalidation will not render the remainder of this rule invalid.

The limited circumstance in which severability is not intended would be where the decoupled approach is determined to be invalid. If the decoupled approach is determined to be invalid, the revisions to the definition of abatement (at 40 CFR 745.223) and the abatement report language (at 40 CFR 745.227(e)(10)(vii)) would not be necessary or helpful. In contrast, however, EPA does intend severability in the inverse scenario: if either the definition of abatement or the amended abatement report language were determined to be invalid, EPA intends severability of all other provisions, including the decoupled approach.

#### VIII. References

The following is a list of the documents that are specifically referenced in this document. The docket includes these documents and other information considered by EPA, including documents that are referenced within the documents that are included in the docket, even if the referenced document is not physically located in the docket. For assistance in locating these other documents, please consult the technical person listed under **FOR FURTHER INFORMATION CONTACT**.

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## IX. Statutory and Executive Order Reviews

Additional information about these statutes and executive orders can be found at <https://www.epa.gov/laws-regulations/laws-and-executive-orders>.

### A. Executive Orders 12866: Regulatory Planning and Review and 14094: Modernizing Regulatory Review

This action is a “significant regulatory action” as defined under section 3(f)(1) of Executive Order 12866 (58 FR 51735, October 4, 1993), as amended by Executive Order 14094 (88 FR 21879, April 11, 2023). Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under Executive Order 12866. Documentation of any changes made in response to the Executive Order 12866 review is available in the docket. The Agency prepared an analysis of the potential costs and benefits associated with this action (Ref. 10), which is available in the docket and is summarized in Unit I.E.

### B. Paperwork Reduction Act (PRA)

The information collection activities in this final rule have been submitted for review and approval to OMB under the PRA, 44 U.S.C. 3501 *et seq.* The Information Collection Request (ICR) document that EPA prepared has been assigned EPA ICR No. 2760.02 and OMB Control No. 2070-0227 (Ref. 127). You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here. The information collection requirements are not enforceable until OMB approves them.

The ICR addresses the incremental changes to the existing reporting, notification, and recordkeeping programs that are currently approved under OMB Control Nos. 2070-0151 and 2070-0195. As approved under OMB Control No. 2070-0151 and pursuant to 24 CFR part 35, subpart A, and 40 CFR 745, Subpart F, sellers and lessors of target housing must already provide purchasers or lessees any available records or reports “pertaining to” LBP and/or LBP hazards available to the seller or lessor. Accordingly, a seller or lessor must disclose any reports showing dust-lead levels, regardless of the value. A lower hazard standard may prompt a different response on the already required lead disclosure form (*i.e.*, that a lead-based paint hazard is present rather than not), which would occur when a dust-lead level is below the 2019 standard but at or above a lower final reportable level. However, for existing target housing, this action would not result in additional disclosures because the lead disclosure form is required regardless of whether dust-lead is present at or below the hazard standard or reportable level. Note that leases (which does not include sales) of target housing are exempt from disclosure requirements in limited circumstances, such as where the housing has been found to be LBP free by a certified inspector (24 CFR 35.82; 40 CFR 745.101), even if the dust-lead level is at or above the DLRL. Nevertheless, due to the change in target housing definition, EPA estimates an additional 967 disclosure events will occur annually, which will affect 3,040 respondents at an average burden and cost of 0.11 hours and \$4.58 per respondent, resulting in a total annual burden of 337 hours at a total annual cost of \$13,910.

Next, as approved under OMB Control No. 2070-0195, the ICR addresses the information collection activities associated with the reporting and recordkeeping requirements for individuals, firms and State and local government entities conducting LBP activities or renovations of target housing and COFs; training providers; and States/territories/Tribes/Alaska Native villages. These information collection activities include the following:

- LBP activity firm pre-abatement reports and occupant protection plans, abatement activity notifications, post-abatement reports and recordkeeping;
- Applications for certification of individuals performing LBP activities, and related recordkeeping;

- LBP activities training provider accreditation applications, training notifications, and recordkeeping;
- LBP activity firm certification applications and recordkeeping;
- Distribution of pre-renovation lead hazard information pamphlet and post-renovation checklists documenting lead-safe work practices;
- RRP and LBP professionals classroom training time related to recordkeeping compliance;
- RRP training provider accreditation applications, training notifications, and recordkeeping;
- Private RRP firm and Government-employed RRP professional certification applications and recordkeeping; and
- Submission of related fees.

Incremental abatement notifications would be required when an abatement occurs due to the DLRL/DLAL and does not occur in the baseline; EPA estimates that 1,779 to 2,687 such notifications will incur average annual paperwork-associated costs of \$161. Additional LBP workers may need to be hired and subsequently trained and certified to accommodate the additional dust-lead remediation activities triggered by the DLRL/DLAL. EPA estimates that 1,304 to 2,551 respondents will incur average annual paperwork-associated costs of \$457. Because the EA finds that the DLRL/DLAL would increase the average number of new lead hazard reduction events per firm by up to 16 per year, EPA assumes that existing LBP activity firms would cover this new work and new entrants are unlikely to emerge. As such, EPA does not estimate any paperwork costs associated with LBP activity firm certification. Similarly, the EA finds that there would be fewer than 1 incremental event per affected RRP firm and therefore EPA expects no new RRP firms or employees will enter the market in response to the DLRL/DLAL. As such, EPA does not estimate any paperwork costs associated with RRP firm certification or RRP training.

The revisions to the definition of target housing will result in paperwork costs in two dimensions. First, abatement firms operating in newly defined target housing are expected to incur reporting and recordkeeping costs for those additional events. EPA estimates that 25 respondents will incur an average annual cost of \$96 for these activities. Second, renovation service firms performing renovation activities in newly defined target housing are required to perform disclosure activities. This will result in recurring disclosure event, recordkeeping, and materials costs. EPA estimates that 1,977 respondents will incur an average annual cost of \$16.

In addition, EPA currently receives approximately 90 percent of required notifications as well as applications for accreditation, certification, and recertification from training providers, firms, and lead abatement individuals through EPA's Central Data Exchange (CDX). The paperwork activities, related burden and costs with CDX user registration for those who elect to exercise the electronic submission option established under the Agency's Cross-media Electronic Reporting Rule (CROMERR) (40 CFR part 3) are described in an ICR approved under OMB Control No. 2025-0003. The amended information collection activities contained in this rule are designed to assist the Agency in meeting its responsibility under TSCA to receive, process, and review reports, data, and other information. Accordingly, this rule requires regulated parties to submit notifications and applications through CDX.

The ICR prepared for this rule addresses the incremental burden changes related to the expected increase in the number of responses to the activities considered in the other existing ICRs, as well as the changing response obligation for the use of CDX from voluntary to mandatory.

*Respondents/affected entities:*

Persons engaged in selling or leasing certain residential dwellings built before 1978; persons who are engaged in lead-based paint activities and/or perform renovations of target housing or child-occupied facilities for compensation, dust sampling, or dust testing; persons who perform lead-based paint inspections, lead hazard screens, risk assessments or abatements in target housing or child-occupied facilities; persons who provide training or operate a training program for individuals who perform any of these activities; State, territorial or Tribal agencies that administer lead-based paint activities and/or renovation programs. See also Unit I.A.

*Respondent's obligation to respond:* Mandatory (Title X and 40 CFR part 745).

*Estimated number of respondents:* 8,123 to 10,278 (per year).

*Frequency of response:* On occasion.

*Total estimated burden:* 16,982 to 29,462 hours (per year). Burden is defined at 5 CFR 1320.3(b).

*Total estimated cost:* \$0.9 million to \$1.6 million (per year), includes no annualized capital or operation and maintenance costs.

Under the PRA, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a

currently valid OMB control number. The OMB control numbers for certain EPA's regulations in 40 CFR are listed in 40 CFR part 9, and on associated collection instruments. When OMB approves this ICR, EPA will announce that approval in the **Federal Register** and publish a technical amendment to 40 CFR part 9 to display the OMB control number for the approved information collection activities contained in this final rule.

*C. Regulatory Flexibility Act (RFA)*

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA, 5 U.S.C. 601 *et seq.* The small entities subject to the requirements of the DLRL and DLAL are small businesses that are landlords who may incur costs for lead hazard reduction measures in compliance with the HUD's LSHR; elementary and secondary schools or child day care services (who may incur costs associated with lead hazard reduction measures in COFs); residential remodelers (who may incur costs associated with additional cleaning and sealing in houses undergoing rehabilitation or ongoing lead-based paint maintenance subject to the HUD LSHR); and abatement firms (who may also incur costs associated with additional cleaning and sealing under the LSHR). The Agency has determined that approximately 18,000 small businesses would be directly affected by the DLRL and DLAL, of which 85% to 86% have cost impacts less than 1% of revenues, 12% to 13% have impacts between 1% and 3% of revenues, and 2% have impacts greater than 3% of revenues. The total estimated costs to small businesses are between \$45 million and \$89 million per year.

Additionally, the rule's other amendments may potentially affect four types of small entities: property owners that will incur recordkeeping and material costs for real estate disclosures in newly defined target housing; renovation firms that will incur renovation disclosure costs and lead-safe work practice costs in newly defined target housing; LBP activities firms that will incur reporting and recordkeeping costs for abatement activities in newly defined target housing; and EPA-certified training providers that may incur costs for submitting reports electronically. The Agency has determined that approximately 2,998 small businesses would be directly affected by the amendment to the target housing definition, of which 100% have cost impacts less than 1% of revenues. The

Agency has determined that approximately 86 small businesses would be directly affected by the amendment to the electronic reporting requirement, of which 100% have cost impacts less than 1% of revenues. All details of the analysis of potential costs and benefits associated with this action are presented in EPA's EA, which is available in the docket (Ref. 10).

The EA estimates potential costs from the DLRL and DLAL for activities in two types of target housing and COFs—those subject to the HUD LSHR and those where a child with a blood lead level exceeding a Federal or State threshold lives. Importantly, the DLRL do not require the owners of properties covered by this rule to evaluate their properties for the presence of dust-lead hazards, or to act if dust-lead hazards are identified. Although the DLRL and DLAL do not compel specific actions under EPA's LBP Activities Rule to address identified LBP hazards, the DLHS and DLCL are directly cross-referenced in certain requirements mandated by HUD in the housing subject to the LSHR. Aside from the HUD regulations, and perhaps some State or local regulations, the DLRL and DLAL do not impose new Federal requirements on small entities.

*D. Unfunded Mandates Reform Act (UMRA)*

As discussed in Unit I.E.6., this action contains a Federal mandate that may result in expenditures of \$183 million in 2023 dollars (\$100 million in 1995 dollars adjusted for inflation using the GDP implicit price deflator) or more as described in UMRA, 2 U.S.C. 1531–1538, for State, local and Tribal governments, in the aggregate, or the private sector in any one year. However, this action is not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. Additionally, EPA does not believe that this action would impose an unfunded mandate on Tribal governments or otherwise have substantial direct effects on one or more federally recognized Indian Tribes. EPA has prepared the written statement required under section 202 of UMRA (Ref. 13). The statement is included in the docket for this action and is briefly summarized here.

This rulemaking is issued under the authority of TSCA sections 401, 402, 403, 404, and 406, 15 U.S.C. 2601 *et seq.*, as amended by Title X (Pub. L. 102–550) (Ref. 1) and section 237(c) of Title II of Division K of the Consolidated Appropriations Act, 2017 (Pub. L. 115–31, 131 Stat. 789), as well as sections

1004 and 1018 of Title X (42 U.S.C. 4851b, 4852d), as amended by section 237(b) of Title II of Division K of the Consolidated Appropriations Act, 2017.

The EA (Ref. 10) presents the costs of the rule as well as various regulatory options, and is summarized in Unit I.E. The rule is estimated to result in total compliance costs of \$207 million to \$348 million per year. Thus, the annual cost of the rule to the private sector (and State, local, and Tribal governments) in the aggregate exceeds the inflation-adjusted \$100 million UMRA threshold.

This rule will reduce exposures to lead, resulting in benefits from avoided adverse health effects. For the subset of health effects where the results were quantified, the estimated annualized benefits are \$1.54 billion to \$10.315 billion per year using a 2% discount rate. There may be additional unquantified benefits due to other avoided health effects.

Net benefits are the difference between benefits and costs. The rule is estimated to result in quantified net benefits of \$1.367 billion to \$9.966 billion per year using a 2% discount rate. EPA considers unquantified health benefits to be potentially important non-monetized impacts that contribute to the overall net benefits of this rule.

Under section 205 of UMRA, before promulgating a rule for which a written statement is required, EPA must identify and consider a reasonable number of regulatory alternatives. From those alternatives, EPA must select the least costly, most cost-effective, or least burdensome alternative that achieves the rule's objectives, unless the Administrator publishes with the final rule an explanation why the least costly, most cost-effective, or least burdensome method was not adopted; or the provisions of section 205 are inconsistent with applicable law.

EPA considered several regulatory alternatives in the economic analysis for the final rule. One of these options, DLRL and DLAL of 10  $\mu\text{g}/\text{ft}^2$ , 100  $\mu\text{g}/\text{ft}^2$ , and 400  $\mu\text{g}/\text{ft}^2$  for floors, window sills and window troughs, would have lower costs than the alternative selected for the final rule. This alternative option would be more cost-effective than the final rule in terms of the cost per case of premature cardiovascular mortality avoided. However, the final rule is the most cost-effective option analyzed for both the cost per lost IQ point avoided and the cost per ADHD case avoided. The final rule also avoids far more IQ loss and cases of cardiovascular mortality risk and ADHD than does the alternative option.

Compared with DLAL of 10  $\mu\text{g}/\text{ft}^2$ , 100  $\mu\text{g}/\text{ft}^2$ , and 400  $\mu\text{g}/\text{ft}^2$ , DLAL of 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$  represents

a reduction of 50% or more in the allowable level of dust-lead loadings following the completion of an abatement. As a result, DLAL of 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$  would be beneficial to maintaining lower children's BLLs and protecting against associated health outcomes such as decreased IQ. The TSD modeling shows that young children in pre-1978 housing exposed to dust-lead loadings of 5  $\mu\text{g}/\text{ft}^2$  for floors and 40  $\mu\text{g}/\text{ft}^2$  for window sills would have an estimated 13.9% probability of exceeding a total BLL of 3.5  $\mu\text{g}/\text{dL}$  (CDC's BLRV). This is significantly lower than the 18.0% probability of exceedance of the BLRV when exposed to DLAL of 10  $\mu\text{g}/\text{ft}^2$  for floors and 100  $\mu\text{g}/\text{ft}^2$  on window sills.

When considering dust-lead exposure only, young children in pre-1978 housing exposed to DLAL of 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$  would have a 22.4% probability of exceeding 2 points of IQ loss. This is considerably less than the 37.9% chance of exceeding 2 points of IQ loss for children exposed to DLAL levels of 10  $\mu\text{g}/\text{ft}^2$ , 100  $\mu\text{g}/\text{ft}^2$ , and 400  $\mu\text{g}/\text{ft}^2$ . Overall, the TSD modeling indicates that the 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$  DLAL represents a substantial reduction in risk compared with DLAL of 10  $\mu\text{g}/\text{ft}^2$ , 100  $\mu\text{g}/\text{ft}^2$ , and 400  $\mu\text{g}/\text{ft}^2$ .

EPA's analysis of the HUD LHCCS data indicates that 72% of samples showed dust-lead levels at or below 5  $\mu\text{g}/\text{ft}^2$  for floors, 88% were at or below 40  $\mu\text{g}/\text{ft}^2$  for window sills, and 93% were at or below 100  $\mu\text{g}/\text{ft}^2$  for window troughs. The respondents to HUD's survey were only required to achieve clearance below the dust-lead clearance levels that were in effect at that time (which were 40  $\mu\text{g}/\text{ft}^2$  for floors, 250  $\mu\text{g}/\text{ft}^2$  window sills, and 400  $\mu\text{g}/\text{ft}^2$  for window troughs), and the percentage of samples achieving these post-abatement dust-lead loadings may be even higher today (due to the 2021 Final Rule revising the clearance levels to 10  $\mu\text{g}/\text{ft}^2$  for floors and 100  $\mu\text{g}/\text{ft}^2$  for window sills, described as dust-lead action levels moving forward). Furthermore, New York City lowered its standards for floors, window sills and window wells (*i.e.*, troughs), respectively, to 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , 100  $\mu\text{g}/\text{ft}^2$  in 2021. As a result, EPA has high confidence that the 5  $\mu\text{g}/\text{ft}^2$ , 40  $\mu\text{g}/\text{ft}^2$ , and 100  $\mu\text{g}/\text{ft}^2$  for floors, window sills, and window troughs DLAL option is achievable.

Therefore, EPA has concluded that the final rule option better achieves the objectives of reliability, effectiveness and safety than does the alternative option of 10  $\mu\text{g}/\text{ft}^2$ , 100  $\mu\text{g}/\text{ft}^2$ , and 400  $\mu\text{g}/\text{ft}^2$  for floors, window sills and troughs.

EPA sought input from State and local government representatives early in the rulemaking process during the joint intergovernmental consultation initiated in November 2022. EPA's experience in administering the existing LBP activities program under TSCA section 402 suggests that these governments will play a critical role in the successful implementation of the national program to reduce exposures to LBP hazards.

#### *E. Executive Order 13132: Federalism*

EPA has concluded that this action has federalism implications, as specified in Executive Order 13132 (64 FR 43255, August 10, 1999), because of the potential effects on public housing authorities. While some HUD grant funding for LBP projects exists, the Federal government may not provide the funds necessary to pay the entirety of the costs. State and local governments may provide additional funding to pay for some of these costs. These costs to public housing authorities—estimated at \$27 million per year—cover additional lead hazard reduction activities, cleaning, and dust-lead testing to ensure that public housing units are in compliance with the LSHR. Public school districts that administer COFs are also estimated to have annual compliance costs of approximately \$850,000 per year. Additionally, States that have authorized LBP activities programs must demonstrate that they meet any new requirements imposed by this rulemaking and are at least as protective as the levels at 40 CFR 745.65 and 40 CFR 745.227. However, authorized States are under no obligation to continue to administer the LBP activities program, and if they do not wish to adopt the DLRL and DLCL they can relinquish their authorization. In the absence of a State authorization, EPA will administer these requirements.

EPA provides the following federalism summary impact statement. EPA consulted with State and local officials early in the process of developing the proposed action to permit them to have meaningful and timely input into its development. EPA invited the following national organizations representing State and local elected officials to a consultation meeting on November 10, 2022: National Governors' Association, National Conference of State Legislatures, U.S. Conference of Mayors, National League of Cities, Council of State Governments, International City/County Management Association, National Association of Counties, National Association of Towns and Townships, County Executives of America, and Environmental Council of

the States. Additionally, the agency invited professional organizations that represent or have State and local government members, such as Public Housing Authorities Directors Association, Council of Large Public Housing Authorities, Association of State and Territorial Health Officials, American Public Works Association, and other groups to participate in the meeting. The comments received during this consultation, and EPA's response thereto, are discussed in Unit IX.E. of the notice of proposed rulemaking (88 FR 50477).

EPA notes that according to the 2021 Court Opinion the Agency cannot take into account non-health factors, such as costs, when revising the DLHS. However, the Agency can and did consider non-health factors when revising the DLAL. Accordingly, as described elsewhere in this notice, EPA is promulgating DLAL that are higher than those it originally proposed. This will allow laboratories to continue using FAAS instruments for dust-wipe testing. This will limit increases in laboratory testing costs and turnaround times, including for abatements in properties owned by public housing authorities and public-school districts.

#### *F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments*

This action does not have Tribal implications as specified in Executive Order 13175 (65 FR 67249, November 9, 2000), because it will not have substantial direct effects on Tribal governments, on the relationship between the Federal government and the Indian Tribes, or on the distribution of power and responsibilities between the Federal government and Indian Tribes. Federally recognized Tribes that have authorized LBP activities programs must demonstrate that they meet any new requirements imposed by this rulemaking and are at least as protective as the levels at 40 CFR 745.65 and 40 CFR 745.227. However, these authorized Tribes are under no obligation to continue to administer the LBP activities program, and if they do not wish to adopt the new DLRL and DLAL they can relinquish their authorization. In the absence of a Tribal authorization, EPA will administer these requirements. This action does not create an obligation for Tribes to administer LBP activities programs or alter EPA's authority to administer these programs. For these reasons, Executive Order 13175 does not apply to this action.

Consistent with the EPA Policy on Consultation and Coordination with Indian Tribes, EPA consulted with

Tribal officials during the development of this action. The Agency provided an opportunity for consultation from July 24, 2023, to September 22, 2023, with consultation sessions on August 9 and 10, 2023. Tribal officials were given the opportunity to meaningfully interact with EPA concerning the dust-lead standards, and all other amendments in the proposed rulemaking. During the consultation sessions, EPA covered the legal and regulatory history of this rulemaking, the approach to revising both dust-lead standards, other amendments such as the definition of target housing, the potential Tribal impacts and the estimated economic costs and benefits, as well as provided resources and information to Tribal officials about how to submit written comments to the Agency. Beyond a few clarifying questions, Tribal officials raised no related issues or concerns to EPA during or in follow-up to those meetings (Ref. 128). EPA received no additional written comments from Tribes as part of this consultation opportunity.

#### *G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks*

Executive Order 13045 (62 FR 19885, April 23, 1997) directs Federal agencies to include an evaluation of the health and safety effects of the planned regulation on children in Federal health and safety standards and explain why the regulation is preferable to potentially effective and reasonably feasible alternatives. This action is subject to Executive Order 13045 because it is a significant regulatory action under section 3(f)(1) of Executive Order 12866 (as amended by Executive Order 14094), and EPA believes that the environmental health or safety risk addressed by this action has a disproportionate effect on children as they are more susceptible to the adverse health effects of lead due to their behavior and physiology. Accordingly, we have evaluated the environmental health or safety effects of dust-lead exposure on children.

The results of this evaluation are contained in Unit I.E., and in the EA and TSD, where the health impacts of lead exposure on children are discussed more fully (Refs. 10 and 12). The documents referenced in this unit are available in the public docket for this action.

This action is preferred over other regulatory options analyzed because the DLRL aligns with the current state of the science, which does not support identifying a threshold of dust-lead exposure below which there would be

no adverse human health effects. EPA has set the DLAL taking into account the statutory criteria of reliability, effectiveness, and safety.

Furthermore, EPA's 2021 Policy on Children's Health also applies to this action. Discussion about how the Agency applied this policy is presented in Unit I.E.5.

#### *H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution or Use*

This action is not a "significant energy action" as defined in Executive Order 13211 (66 FR 28355, May 22, 2001), because it is not likely to have a significant adverse effect on the supply, distribution or use of energy.

#### *I. National Technology Transfer and Advancement Act (NTTAA) and 1 CFR Part 51*

This action involves technical standards under NTTAA section 12(d), 15 U.S.C. 272 *note*. ASTM E1728 and ASTM E1792 are already cited in an existing regulatory definition of "wipe sample" at 40 CFR 745.63. EPA is formally incorporating the most current version of these standards (*i.e.*, ASTM E1728–20 and ASTM E1792–20). Additional information about these standards, including how to access them, is provided in Unit IV.F.8.

#### *J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations and Executive Order 14096: Revitalizing Our Nation's Commitment to Environmental Justice for All*

EPA believes that the human health or environmental conditions that exist prior to this action result in or have the potential to result in disproportionate and adverse human health or environmental effects on communities with environmental justice concerns consistent with Executive Order 14096 (88 FR 25251, April 26, 2023) (building on and supplementing E.O. 12898 (59 FR 7629, February 16, 1994)). See discussion in Section 8.6 of the EA (Ref. 10) concerning existing disproportionate impacts of lead pollution faced by individuals in low-income households and households of people of color and/or Indigenous peoples, and the measured extent to which this action particularly benefits the health of individuals in low-income households.

EPA believes that this action is likely to reduce existing disproportionate and adverse effects on communities with environmental justice concerns. For example, 50% of children under age 6

who will benefit from the rule are members of households below the poverty line, compared with 17% of children under age 6 nationally who live below the poverty line. An estimated 48% of total monetized IQ benefits from this rule accrue to children under age 6 living in a household below the poverty line. An estimated 28% of children under age 6 who will benefit from the rule are non-Hispanic Black, compared with 12% of children under age 6 nationally who are non-Hispanic Black. An estimated 23% of total monetized IQ benefits from this rule accrue to non-Hispanic Black children.

For children ages 0 to 15 at the time of exposure reduction benefiting from this rulemaking due to reduced cases of ADHD, 53% of those live in a household with an annual income below the poverty line, compared to 19% of children ages 0 to 15 in target housing who live below the poverty line. An estimated 40% of total monetized ADHD benefits from this rule accrue to children ages 0 to 15 living in a household below the poverty line. Additionally, 36% of children ages 0 to 15 benefiting from this rulemaking are non-Hispanic Black, compared to the 13% of children in target housing who similarly identify. However, only an estimated 27% of total monetized ADHD benefits from this rule accrue to non-Hispanic Black children.

Similarly, 49% of the adults benefiting from this rulemaking live in a household with annual income below the poverty line, compared to 13% of adults in target housing who live below the poverty line. Adults living in a household below the poverty line receive an estimated 43% of total monetized cardiovascular mortality avoidance benefits from this rule. Moreover, 39% of adults benefitting from this rulemaking are non-Hispanic Black, compared to the 13% of adults in target housing who identify as non-Hispanic Black. An estimated 49% of total monetized cardiovascular mortality avoidance benefits from this rule accrue to non-Hispanic Black adults.

There is some uncertainty, however, regarding the environmental justice implications of this rule on HUD-assisted housing. If the rule inadvertently limits the availability of federally assisted affordable housing, a subset of low-income individuals or families currently residing in assisted housing may face higher housing costs on the private market, disruptions caused by an involuntary loss of housing, and the potential for dust lead levels that exceed those in their baseline LSHR-regulated housing.

EPA additionally identified and addressed environmental justice concerns through public comment and collaboration with State, Tribal, and other co-regulatory bodies related to the EJ2020 action agenda and the development of the EPA Lead Strategy. Through the EPA Lead Strategy, EPA has engaged with key stakeholders, communities, and organizations with vested interests in addressing lead exposures. Disparities in lead pollution are a national area of focus in the EJ2020 action agenda (Ref. 129), and this rulemaking’s protective standards will deliver demonstrative progress on addressing childhood lead exposure and health disparities to members of overburdened communities.

The information supporting the Executive Order 12898 review is contained in the EA (Ref. 10) and EPA Lead Strategy (Ref. 8), both of which are available in the docket.

**K. Congressional Review Act (CRA)**

This action is subject to the CRA, 5 U.S.C. 801 *et seq.*, and EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action meets the criteria set forth in 5 U.S.C. 804(2).

**List of Subjects in 40 CFR Part 745**

Environmental protection, Abatement, Child-occupied facility, Clearance levels, Hazardous substances, Incorporation by reference, Lead, Lead poisoning, Lead-based paint, Target housing.

**Michael S. Regan,**  
*Administrator.*

Therefore, for the reasons set forth in the preamble, 40 CFR chapter I is amended as follows:

**PART 745—LEAD-BASED PAINT POISONING PREVENTION IN CERTAIN RESIDENTIAL STRUCTURES**

- 1. The authority citation for part 745 continues to read as follows:

**Authority:** 15 U.S.C. 2605, 2607, 2681–2692 and 42 U.S.C. 4852d.

- 2. Amend § 745.61 by adding paragraph (d) to read as follows:

**§ 745.61 Scope and applicability.**

\* \* \* \* \*

(d) Before January 13, 2025, the levels identified in 40 CFR 745.227(e)(8)(viii) were referred to as clearance levels. On or after January 13, 2025, the levels identified in § 745.227(e)(8)(viii) are referred to as action levels.

- 3. Amend § 745.63 by adding in alphabetical order the definitions of “Reportable level” and revising the

definition of “Wipe sample” to read as follows:

**§ 745.63 Definitions.**

\* \* \* \* \*

*Reportable level* means the lowest analyte concentration (or amount) that does not contain a “less than” qualifier and that is reported with confidence for a specific method by a laboratory recognized by EPA under TSCA section 405(b).

\* \* \* \* \*

*Wipe sample* means a sample collected by wiping a representative surface of known area, as determined by ASTM E1728/E1728M–20 (incorporated by reference, see § 745.67), or equivalent method, with an acceptable wipe material as defined in ASTM E1792–20 (incorporated by reference, see § 745.67).

- 4. Amend § 745.65 by revising paragraph (b) to read as follows:

**§ 745.65 Lead-based paint hazards.**

\* \* \* \* \*

(b) *Dust-lead hazard.* Before January 12, 2026, a dust-lead hazard is surface dust in a residential dwelling or child-occupied facility that contains a mass-per-area concentration of lead equal to or exceeding 10 µg/ft<sup>2</sup> for floors or 100 µg/ft<sup>2</sup> for interior window sills based on wipe samples. On or after January 12, 2026, a dust-lead hazard is surface dust in a residential dwelling or child-occupied facility that contains a mass-per-area concentration of any reportable level of lead for floors or for interior window sills based on wipe samples analyzed by an NLLAP-recognized laboratory.

\* \* \* \* \*

- 5. Add § 745.67 to Subpart D to read as follows:

**§ 745.67 Incorporation by reference.**

Certain material is incorporated by reference into this subpart with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. All approved incorporation by reference (IBR) material is available for inspection at the Environmental Protection Agency (EPA) and at the National Archives and Records Administration (NARA). Contact EPA at: OPPT Docket in the Environmental Protection Agency Docket Center (EPA/DC), West William Jefferson Clinton Bldg., Rm. 3334, 1301 Constitution Ave. NW, Washington, DC. The EPA/DC Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number of the EPA/DC Public Reading room is

(202) 566-1744, and the telephone number for the OPPT Docket is (202) 566-0280. For information on the availability of this material at NARA, visit [www.archives.gov/federal-register/cfr/ibr-locations](http://www.archives.gov/federal-register/cfr/ibr-locations) or email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov). The material may be obtained from the following sources:

(a) ASTM. ASTM International, 100 Barr Harbor Dr., P.O. Box C700, West Conshohocken, PA 19428-2959; (877) 909-ASTM; [www.astm.org](http://www.astm.org).

(1) ASTM E1728/E1728M-20, Standard Practice for Collection of Settled Dust Samples Using Wipe Sampling Methods for Subsequent Lead Determination, Approved January 1, 2020; IBR approved for § 745.63.

(2) ASTM E1792-20, Standard Specification for Wipe Sampling Materials for Lead in Surface Dust, Approved September 1, 2020; IBR approved for § 745.63.

(b) [Reserved]

■ 6. Amend § 745.81 by revising paragraphs (a)(4) and (b) to read as follows:

**§ 745.81 Effective dates.**

(a) \* \* \*

(4) *Work practices.* On or after July 6, 2010, all renovations must be performed in accordance with the work practice standards in § 745.85 and the associated recordkeeping requirements in § 745.86(b)(1) and (b)(6) in target housing or child-occupied facilities, unless the renovation qualifies for the exception identified in § 745.82(a).

\* \* \* \* \*

(b) *Renovation-specific pamphlet.* On or after December 22, 2008, renovators or firms performing renovations in States and Indian Tribal areas without an authorized program must provide owners and occupants the following EPA pamphlet: *Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools.*

\* \* \* \* \*

■ 7. Amend § 745.83 by adding in alphabetical order the definition of “Electronic” to read as follows:

**§ 745.83 Definitions.**

\* \* \* \* \*

*Electronic* means the submission of an application, payment, or notification using the Agency’s Central Data Exchange (CDX), or successor platform.

\* \* \* \* \*

■ 8. Amend § 745.85 by revising paragraph (c)(3) to read as follows:

**§ 745.85 Work practice standards.**

\* \* \* \* \*

(c) \* \* \*

(3) The renovation firm is required to re-clean the work area until the dust sample results are below the dust-lead action levels in § 745.227(e)(8) or any applicable State, Territorial, Tribal, or local standard.

\* \* \* \* \*

■ 9. Amend § 745.89 by revising paragraphs (a)(1), introductory text of paragraph (b)(1), (b)(1)(i), and (c)(1) to read as follows:

**§ 745.89 Firm certification.**

(a) \* \* \*

(1) Firms that perform renovations for compensation must electronically apply to EPA for certification to perform renovations or dust sampling. To apply, a firm must submit to EPA a completed “Application for Firms,” signed by an authorized agent of the firm, and pay electronically at least the correct amount of fees. If a firm pays more than the correct amount of fees, EPA will reimburse the firm for the excess amount.

\* \* \* \* \*

(b) \* \* \*

(1) *Timely and complete application.* To be re-certified, a firm must submit a complete electronic application for re-certification. A complete application for re-certification includes a completed “Application for Firms” which contains all of the information requested by the form and is signed by an authorized agent of the firm, noting on the form that it is submitted as a re-certification. A complete application must also include at least the correct amount of fees. If a firm pays more than the correct amount of fees, EPA will reimburse the firm for the excess amount.

(i) An application for re-certification is timely if it is electronically submitted 90 days or more before the date the firm’s current certification expires. If the firm’s application is complete and timely, the firm’s current certification will remain in effect until its expiration date or until EPA has made a final decision to approve or disapprove the re-certification application, whichever is later.

\* \* \* \* \*

(c) \* \* \*

(1) To amend certification, a firm must electronically submit a completed “Application for Firms,” signed by an authorized agent of the firm, noting on the form that it is submitted as an amendment and indicating the information that has changed. The firm must also pay at least the correct amount of fees.

\* \* \* \* \*

■ 10. Amend § 745.90 by revising paragraphs (a)(3) and (4) and paragraph (c)(1) to read as follows:

**§ 745.90 Renovator certification and dust sampling technician certification.**

(a) \* \* \*

(3) Individuals who have successfully completed an accredited lead-based paint inspector or risk assessor course before October 4, 2011 may take an accredited refresher dust sampling technician course in lieu of the initial training to become a certified dust sampling technician. Individuals who are currently certified as lead-based paint inspectors or risk assessors may act as certified dust sampling technicians without further training.

(4) To maintain renovator certification or dust sampling technician certification, an individual must complete a renovator or dust sampling technician refresher course accredited by EPA under § 745.225 or by a State or Tribal program that is authorized under Subpart Q of this part within 5 years of the date the individual completed the initial course described in paragraph (a)(1) of this section. If the individual does not complete a refresher course within this time, the individual must re-take the initial course to become certified again. Individuals who take a renovator refresher course that does not include hands-on training will be certified for 3 years from the date they complete the training. Individuals who take a refresher training course that includes hands-on training will be certified for 5 years. Individuals who take the renovator refresher without hands-on training must, for their next refresher course, take a refresher course that includes hands-on training to maintain renovator certification.

\* \* \* \* \*

(c) \* \* \*

(1) Must collect dust samples in accordance with § 745.227(e)(8), must send the collected samples to a laboratory recognized by EPA under TSCA section 405(b), and must compare the results to the action levels in accordance with § 745.227(e)(8).

\* \* \* \* \*

■ 11. Amend § 745.92 by revising paragraph (c)(2) to read as follows:

**§ 745.92 Fees for the accreditation of renovation and dust sampling technician training and the certification of renovation firms.**

\* \* \* \* \*

(c) \* \* \*

(2) Submit the application and a payment of \$15 electronically in

accordance with the instructions provided with the application package.  
\* \* \* \* \*

■ 12. Amend § 745.103 by revising the definition of “Target housing” to read as follows:

**§ 745.103 Definitions.**

\* \* \* \* \*

*Target housing* means any housing constructed prior to 1978, except housing for the elderly or persons with disabilities or any 0-bedroom dwelling (unless any child who is less than 6 years of age resides or is expected to reside in such housing).  
\* \* \* \* \*

■ 13. Amend § 745.113 by revising paragraphs (a)(4), (b)(1) and (4) to read as follows:

**§ 745.113 Certification and acknowledgement of disclosure.**

(a) \* \* \*

(4) A statement by the purchaser affirming receipt of the information set out in paragraphs (a)(2) and (3) of this section and the lead hazard information pamphlet required under 15 U.S.C. 2686.  
\* \* \* \* \*

(b) \* \* \*

(1) A Lead Warning Statement with the following language:

Housing built before 1978 may contain lead-based paint. Lead from paint, paint chips, and dust can pose health hazards if not managed properly. Lead exposure is especially harmful to young children and pregnant women. Before renting pre-1978 housing, lessors must disclose the presence of known lead-based paint and/or lead-based paint hazards in the dwelling. Lessees must also receive a federally approved pamphlet on lead poisoning prevention.  
\* \* \* \* \*

(4) A statement by the lessee affirming receipt of the information set out in paragraphs (b)(2) and (3) of this section and the lead hazard information pamphlet required under 15 U.S.C. 2686.  
\* \* \* \* \*

■ 14. Amend § 745.223 by:

- a. Revising the definition of “Abatement”;
- b. Adding in alphabetical order the definition of “Action levels”;
- c. Revising the definitions of “Certified inspector”, “Certified risk assessor” and “Child-occupied facility”;
- d. Removing the definition of “Clearance levels”;
- e. Adding in alphabetical order the definitions of “Electronic” and “Housing for the elderly”;
- f. Revising the definitions of “Living area” and “Target housing”; and

■ g. Removing the definition for “Visual inspection for clearance testing” and adding in its place the definition “Visual inspection for abatement-related testing”.

The revisions and additions read as follows:

**§ 745.223 Definitions.**

\* \* \* \* \*

*Abatement* means any measure or set of measures designed to permanently eliminate lead-based paint hazards, in the case of dust-lead hazards to below the action levels. Abatement includes, but is not limited to:

(1) The removal of paint and dust (in the case of dust-lead hazards to below the action levels), the permanent enclosure or encapsulation of lead-based paint, the replacement of painted surfaces or fixtures, or the removal or permanent covering of soil, when lead-based paint hazards are present in such paint, dust or soil; and

(2) All preparation, cleanup, disposal, and post-abatement testing activities associated with such measures.

(3) Specifically, abatement includes, but is not limited to:

(i) Projects for which there is a written contract or other documentation, which provides that an individual or firm will be conducting activities in or to a residential dwelling or child-occupied facility that:

(A) Shall result in the permanent elimination of lead-based paint hazards, in the case of dust-lead hazards to below the action levels; or

(B) Are designed to permanently eliminate lead-based paint hazards, in the case of dust-lead hazards to below the action levels, and are described in paragraphs (1) and (2) of this definition.

(ii) Projects resulting in the permanent elimination of lead-based paint hazards, in the case of dust-lead hazards to below the action levels, conducted by firms or individuals certified in accordance with § 745.226, unless such projects are covered by paragraph (4) of this definition;

(iii) Projects resulting in the permanent elimination of lead-based paint hazards, in the case of dust-lead hazards to below the action levels, conducted by firms or individuals who, through their company name or promotional literature, represent, advertise, or hold themselves out to be in the business of performing lead-based paint activities as identified and defined by this section, unless such projects are covered by paragraph (4) of this definition; or

(iv) Projects resulting in the permanent elimination of lead-based paint hazards, in the case of dust-lead

hazards to below the action levels, that are conducted in response to State or local abatement orders.

(4) Abatement does not include renovation, remodeling, landscaping or other activities, when such activities are not designed to permanently eliminate lead-based paint hazards, in the case of dust-lead hazards to below the action levels, but, instead, are designed to repair, restore, or remodel a given structure or dwelling, even though these activities may incidentally result in a reduction or elimination of lead-based paint hazards. Furthermore, abatement does not include interim controls, operations and maintenance activities, or other measures and activities designed to temporarily, but not permanently, reduce lead-based paint hazards, in the case of dust-lead hazards to below the action levels.  
\* \* \* \* \*

*Action levels* are the values that indicate the amount of lead in dust on a surface following completion of an abatement activity. To complete abatement when dust sampling is required, values below these levels must be achieved. EPA previously used the term “clearance levels” to refer to these levels.  
\* \* \* \* \*

*Certified inspector* means an individual who has been trained by an accredited training program, as defined by this section, and certified by EPA pursuant to § 745.226 to conduct inspections. A certified inspector also samples for the presence of lead in dust and soil for the purposes of abatement-related testing.  
\* \* \* \* \*

*Certified risk assessor* means an individual who has been trained by an accredited training program, as defined by this section, and certified by EPA pursuant to § 745.226 to conduct risk assessments. A risk assessor also samples for the presence of lead in dust and soil for the purposes of abatement-related testing.  
\* \* \* \* \*

*Child-occupied facility* means a building, or portion of a building, constructed prior to 1978, visited regularly by the same child, under 6 years of age, on at least two different days within any week (Sunday through Saturday period), provided that each day’s visit lasts at least 3 hours and the combined weekly visit lasts at least 6 hours, and the combined annual visits last at least 60 hours. Child-occupied facilities may include, but are not limited to, day-care centers, preschools and kindergarten classrooms.  
\* \* \* \* \*



*Electronic* means the submission of an application, payment, or notification using the Agency's Central Data Exchange (CDX), or successor platform.

*Housing for the elderly* means retirement communities or similar types of housing reserved for households composed of one or more persons 62 years of age or more at the time of initial occupancy.

*Living area* means any area of a residential dwelling used by one or more children under age 6 including, but not limited to, living rooms, kitchen areas, dens, play rooms, and children's bedrooms.

*Target housing* means any housing constructed prior to 1978, except housing for the elderly or persons with disabilities or any 0-bedroom dwelling (unless any child who is less than 6 years of age resides or is expected to reside in such housing).

*Visual inspection for abatement-related testing* means the visual examination of a residential dwelling or a child-occupied facility following an abatement to determine whether or not the abatement has been successfully completed.

- 15. Amend § 745.225 by:
  - a. Revising the introductory text of paragraph (b)(1), paragraphs (c)(13)(vi) and (14)(iii), paragraphs (d)(1)(vi), (3)(xi), (4)(v), and (7)(v), paragraph (e)(5), and paragraph (f)(2);
  - b. Removing and reserving paragraph (i)(2)(ii); and
  - c. Revising paragraph (j)(2).

The revisions read as follows:

**§ 745.225 Accreditation of training programs: target housing and child-occupied facilities.**

(b) \* \* \*  
 (1) A training program seeking accreditation shall submit an electronic application to EPA containing the following information:

(c) \* \* \*  
 (13) \* \* \*  
 (vi) Notification must be accomplished electronically. Instructions can be obtained online at <https://www.epa.gov/lead> or from the NLIC at 1-800-424-LEAD (5323). Hearing- or speech-impaired persons may reach this telephone number through TTY by calling the toll-free Federal Communications Commission's

Telecommunications Relay Service at 711.

- \* \* \* \* \*
- (14) \* \* \*  
 (iii) Notification must be accomplished electronically. Instructions can be obtained online at <https://www.epa.gov/lead> or from the NLIC at 1-800-424-LEAD (5323).
- (d) \* \* \*  
 (1) \* \* \*  
 (vi) Action levels and testing, including random sampling.
- \* \* \* \* \*
- (3) \* \* \*  
 (xi) Action levels and testing.
- \* \* \* \* \*
- (4) \* \* \*  
 (v) Action levels and testing for large scale abatement projects.
- \* \* \* \* \*
- (7) \* \* \*  
 (v) Action levels and testing.
- \* \* \* \* \*
- (e) \* \* \*  
 (5) A training program seeking accreditation to offer refresher training courses only shall submit an electronic application to EPA containing the following information:
- \* \* \* \* \*
- (f) \* \* \*  
 (2) A training program seeking re-accreditation shall submit an electronic application to EPA no later than 180 days before its accreditation expires. If a training program does not submit its application for re-accreditation by that date, EPA cannot guarantee that the program will be re-accredited before the end of the accreditation period.
- \* \* \* \* \*
- (i) \* \* \*  
 (2) \* \* \*  
 (ii) [Reserved]
- \* \* \* \* \*
- (j) \* \* \*  
 (2) To amend an accreditation, a training program must electronically submit a completed "Accreditation Application for Training Providers," signed by an authorized agent of the training provider, noting on the form that it is submitted as an amendment and indicating the information that has changed.
- \* \* \* \* \*
- 16. Amend § 745.226 by:
  - a. Revising paragraph (a)(1)(i) and (ii);
  - b. Removing and reserving paragraph (a)(2);
  - c. Revising paragraph (a)(3), introductory text of paragraph (e)(1), and (2), and (f)(2) and (3);
  - d. Removing and reserving paragraph (f)(5); and
  - e. Revising paragraph (h)(1)(iii).

The revisions read as follows:

**§ 745.226 Certification of individuals and firms engaged in lead-based paint activities: target housing and child-occupied facilities.**

- (a) \* \* \*  
 (1) \* \* \*  
 (i) Submit to EPA an electronic application demonstrating that they meet the requirements established in paragraphs (b) or (c) of this section for the particular discipline for which certification is sought; or
- (ii) Submit to EPA an electronic application attaching a copy of a valid lead-based paint activities certification (or equivalent) from a State or Tribal program that has been authorized by EPA pursuant to Subpart Q of this part.
- (2) [Reserved]
- (3) Following the submission of an electronic application demonstrating that all the requirements of this section have been met, EPA shall certify an applicant as an inspector, risk assessor, supervisor, project designer, or abatement worker, as appropriate.

(e) \* \* \*  
 (1) To maintain certification in a particular discipline, a certified individual shall apply electronically to and be re-certified by EPA in that discipline by EPA either:

(2) An individual shall be re-certified if the individual successfully completes the appropriate accredited refresher training course and electronically submits a valid copy of the appropriate refresher course completion certificate.

(f) \* \* \*  
 (2) A firm seeking certification shall electronically submit to EPA an application attesting that the firm shall only employ appropriately certified employees to conduct lead-based paint activities, and that the firm and its employees shall follow the work practice standards in § 745.227 for conducting lead-based paint activities.

(3) From the date of receiving the firm's electronic application requesting certification, EPA shall have 90 days to approve or disapprove the firm's request for certification. Within that time, EPA shall respond with either a certificate of approval or a letter describing the reasons for a disapproval.

- (5) [Reserved]
- (h) \* \* \*  
 (1) \* \* \*  
 (iii) Misrepresented facts in its application for certification to EPA.

- 17. Amend § 745.227 by
  - a. Removing paragraph (a)(4);
  - b. Revising paragraphs (c)(2)(i), (iv) and (v), (d)(3), (5), (6)(ii) and (7), (e)(4)(ii), (vii), the introductory text of paragraph (8), (8)(i) through (v), (vii) and (viii), the introductory text of paragraph (9), (9)(ii), and (iii), and (10)(iv), and (v);
  - c. Adding paragraph (e)(10)(vii); and
  - d. Revising paragraph (h)(2)(i) and (3).

The revisions and additions read as follows:

**§ 745.227 Work practice standards for conducting lead-based paint activities: target housing and child-occupied facilities.**

(a) \* \* \*  
(4) [Removed]

\* \* \* \* \*  
(c) \* \* \*  
(2) \* \* \*

(i) Background information regarding the physical characteristics of the residential dwelling or child-occupied facility and occupant use patterns that may cause lead-based paint exposure to one or more children under age 6 shall be collected.

\* \* \* \* \*

(iv) In residential dwellings, two composite dust samples shall be collected, one from the floors and the other from the windows, in rooms, hallways or stairwells where one or more children, under age 6, are most likely to come in contact with dust.

(v) In multi-family dwellings and child-occupied facilities, in addition to the floor and window samples required in paragraph (c)(2)(iv) of this section, the risk assessor shall also collect composite dust samples from common areas where one or more children, under age 6, are most likely to come into contact with dust.

\* \* \* \* \*

(d) \* \* \*  
(3) Background information regarding the physical characteristics of the residential dwelling or child-occupied facility and occupant use patterns that may cause lead-based paint exposure to one or more children under age 6 shall be collected.

\* \* \* \* \*

(5) In residential dwellings, dust samples (either composite or single-surface samples) from the interior window sill(s) and floor shall be collected and analyzed for lead concentration in all living areas where one or more children, under age 6, are most likely to come into contact with dust.

(6) \* \* \*

(ii) Other common areas in the building where the risk assessor

determines that one or more children, under age 6, are likely to come into contact with dust.

(7) For child-occupied facilities, interior window sill and floor dust samples (either composite or single-surface samples) shall be collected and analyzed for lead concentration in each room, hallway or stairwell utilized by one or more children, under age 6, and in other common areas in the child-occupied facility where one or more children, under age 6, are likely to come into contact with dust.

\* \* \* \* \*

(e) \* \* \*

(4) \* \* \*

(ii) Notification for lead-based paint abatement activities required in response to an elevated blood lead level (EBL) determination, or Federal, State, Tribal, or local emergency abatement order should be received by EPA as early as possible before, but must be received no later than, the start date of the lead-based paint abatement activities. Should the start date and/or location provided to EPA change, an updated notification must be received by EPA on or before the start date provided to EPA. Documentation showing evidence of an EBL determination or a copy of the Federal/State/Tribal/local emergency abatement order must be included in the notification to take advantage of this abbreviated notification period.

\* \* \* \* \*

(vii) Notification must be accomplished electronically. Instructions can be obtained online at <https://www.epa.gov/lead>, or from the NLIC at 1-800-424-LEAD (5323).

\* \* \* \* \*

(8) The following post-abatement procedures shall be performed only by a certified inspector or risk assessor:

(i) Following an abatement, a visual inspection shall be performed to determine if deteriorated painted surfaces and/or visible amounts of dust, debris or residue are still present. If deteriorated painted surfaces or visible amounts of dust, debris or residue are present, these conditions must be eliminated prior to the continuation of the post-abatement testing procedures.

(ii) Following the visual inspection and any post-abatement cleanup required by paragraph (e)(8)(i) of this section, post-abatement sampling for lead in dust shall be conducted. Post-abatement sampling may be conducted by employing single-surface sampling or composite sampling techniques.

(iii) Dust samples for post-abatement testing purposes shall be taken using documented methodologies that

incorporate adequate quality control procedures.

(iv) Dust samples for post-abatement testing purposes shall be taken a minimum of 1 hour after completion of final post-abatement cleanup activities.

(v) The following post-abatement testing activities shall be conducted as appropriate based upon the extent or manner of abatement activities conducted in or to the residential dwelling or child-occupied facility:

\* \* \* \* \*

(vii) The certified inspector or risk assessor shall compare the residual lead level (as determined by the laboratory analysis) from each single surface dust sample with action levels in paragraph (e)(8)(viii) of this section for lead in dust on floors, interior window sills, and window troughs or from each composite dust sample with the applicable action levels for lead in dust on floors, interior window sills, and window troughs divided by half the number of subsamples in the composite sample. If the residual lead level in a single surface dust sample equals or exceeds the applicable action level or if the residual lead level in a composite dust sample equals or exceeds the applicable action level divided by half the number of subsamples in the composite sample, the components represented by the failed sample shall be recleaned and retested.

(viii) Before January 12, 2026, the action levels for lead in dust are 10 µg/ft<sup>2</sup> for floors, 100 µg/ft<sup>2</sup> for interior window sills, and 400 µg/ft<sup>2</sup> for window troughs. On or after January 12, 2026, the action levels for lead in dust are 5 µg/ft<sup>2</sup> for floors, 40 µg/ft<sup>2</sup> for interior window sills, and 100 µg/ft<sup>2</sup> for window troughs.

(9) In a multi-family dwelling with similarly constructed and maintained residential dwellings, random sampling for the purposes of post-abatement testing may be conducted provided:

\* \* \* \* \*

(ii) A sufficient number of residential dwellings are selected for dust sampling to provide a 95 percent level of confidence that no more than 5 percent or 50 of the residential dwellings (whichever is smaller) in the randomly sampled population exceed the appropriate action levels.

(iii) The randomly selected residential dwellings shall be sampled and evaluated according to the post-abatement testing procedures found in paragraph (e)(8) of this section.

(10) \* \* \*

(iv) The name, address, and signature of each certified risk assessor or inspector conducting post-abatement sampling and the date of sampling.

(v) The results of post-abatement dust-lead testing and all soil analyses (if applicable) and the name of each recognized laboratory that conducted the analyses.

\* \* \* \* \*

(vii) On or after January 12, 2026, when post-abatement dust-lead testing results are below the dust-lead action levels and at or above the dust-lead reportable levels, a dust-lead hazard statement with the following language must be included:

Although the completed abatement project achieved dust-lead below action levels, some dust-lead hazards remain because any reportable level of dust-lead is considered a dust-lead hazard by the U.S. Environmental Protection Agency in a residential dwelling or child-occupied facility. In order for abatement work to be considered complete under EPA regulations, dust-lead levels must be below the action levels, which are established based on reliability, effectiveness and safety. To continue to reduce lead exposure from dust, the EPA pamphlet entitled *Protect Your Family From Lead in Your Home* includes recommendations such as: using a vacuum with a high-efficiency particulate air (HEPA) filter on furniture and other items returned to the work area, and regularly cleaning hard surfaces with a damp cloth or sponge and a general all-purpose cleaner. For more information on how to continue to reduce lead exposure, see *Protect Your Family From Lead in Your Home*.

\* \* \* \* \*

(h) \* \* \*  
(2) \* \* \*

(i) On any friction surface that is subject to abrasion and where the lead dust levels on the nearest horizontal surface underneath the friction surface (e.g., the window sill or floor) are equal to or greater than the dust hazard levels identified in § 745.65(b);

\* \* \* \* \*

(3) Dust-lead hazards and dust-lead action levels are identified for residential dwellings and child-occupied facilities as follows:

(i) Before January 12, 2026, a dust lead-hazard is present in a residential dwelling or child-occupied facility on floors and interior window sills when the weighted arithmetic mean lead loading for all single surface or composite samples of floors and interior window sills are equal to or greater than 10 µg/ft² for floors and 100 µg/ft² for interior window sills, respectively; for projects where post-abatement dust-lead testing is required or otherwise

performed, levels of lead in dust must be below 10 µg/ft² for floors, 100 µg/ft² for interior window sills, and 400 µg/ft² for window troughs for purposes of the action levels; on or after January 12, 2026, a dust lead-hazard is present in a residential dwelling or child-occupied facility on floors and interior window sills when the lead loading for any single surface or composite sample of floors and interior window sills is equal to or greater than any reportable level of dust-lead for floors and for interior window sills; for projects where post-abatement dust-lead testing is required or otherwise performed, levels of lead in dust must be below 5 µg/ft² for floors, 40 µg/ft² for interior window sills, and 100 µg/ft² for window troughs for purposes of clearing the action level;

(ii) A dust lead-hazard is present on floors or interior window sills in an unsampled residential dwelling in a multi-family dwelling, if a dust-lead hazard is present on floors or interior window sills, respectively, in at least one sampled residential unit on the property (and, for projects where post-abatement dust-lead testing is required or otherwise performed, levels of lead in dust must be below the applicable value from paragraph (i) of this paragraph for purposes of the action levels); and

(iii) A dust lead-hazard is present on floors or interior window sills in an unsampled common area in a multi-family dwelling, if a dust-lead hazard is present on floors or interior window sills, respectively, in at least one sampled common area in the same common area group on the property (and, for projects where post-abatement dust-lead testing is required or otherwise performed, levels of lead in dust must be below the applicable value from paragraph (i) of this paragraph for purposes of the action levels).

\* \* \* \* \*

- 18. Amend § 745.238 by
■ a. Revising paragraphs (d)(1) and (2);
■ b. Removing paragraph (d)(3); and
■ c. Revising the introductory text of paragraph (e)(1) and (2).

The revisions read as follows:

§ 745.238 Fees for accreditation and certification of lead-based paint activities.

\* \* \* \* \*

(d) \* \* \*

(1) *Certification and re-certification.*

(i) *Individuals.* Submit a completed application electronically (titled

“Application for Individuals to Conduct Lead-based Paint Activities”), the materials described at § 745.226, and the application fee(s) described in paragraph (c) of this section.

(ii) *Firms.* Submit a completed application electronically (titled “Application for Firms”), the materials described at § 745.226, and the application fee(s) described in paragraph (c) of this section.

(2) *Accreditation and re-accreditation.* Submit a completed application electronically (titled “Accreditation Application for Training Programs”), the materials described at § 745.225, and the application fee described in paragraph (c) of this section.

(3) [Removed]

\* \* \* \* \*

(e) \* \* \*

(1) Parties seeking identification card or certificate replacement shall electronically complete the applicable portions of the appropriate application in accordance with the instructions provided. The appropriate applications are:

\* \* \* \* \*

(2) Submit application and payment electronically in the amount specified in paragraph (c)(3) of this section in accordance with the instructions.

\* \* \* \* \*

■ 19. Amend § 745.325 by revising paragraphs (d)(3)(ii) and (iii) to read as follows:

§ 745.325 Lead-based paint activities: State and Tribal program requirements.

\* \* \* \* \*

(d) \* \* \*

(3) \* \* \*

(ii) Abatements permanently eliminate lead-based paint hazards, in the case of dust-lead hazards to below the action levels, and are conducted in a way that does not increase the hazards of lead-based paint to the occupants of the dwelling or child-occupied facility.

(iii) Abatements include post-abatement lead in dust sampling and conformance with the action levels established or adopted by the State or Indian Tribe.

\* \* \* \* \*