



OFFICE *of*  
**INSPECTOR GENERAL**  
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UNITED STATES DEPARTMENT OF  
HOUSING AND URBAN DEVELOPMENT

# HUD's Oversight of Lead-Based Paint Hazard Remediation in Public Housing

U.S. Department of Housing and Urban Development  
Office of Public and Indian Housing | 2023-CH-0001

October 11, 2022

Date: October 11, 2022

To: Dominique Blom  
General Deputy Assistant Secretary for Public and Indian Housing, P

//signed//  
From: Kilah S. White  
Assistant Inspector General for Audit, GA

Subject: HUD Lacked Adequate Oversight of Lead-Based Paint Hazard Remediation in Public Housing

Attached are the U.S. Department of Housing and Urban Development (HUD), Office of Inspector General's (OIG) final results of our audit of HUD's oversight of lead-based paint hazard remediation in public housing.

HUD Handbook 2000.06, REV-4, sets specific timeframes for management decisions on recommended corrective actions. For each recommendation without a management decision, please respond and provide status reports in accordance with the HUD Handbook. Please furnish us copies of any correspondence or directives issued because of the audit.

The Inspector General Act, Title 5 United States Code, appendix 8M, requires that OIG post its reports on the OIG website. Accordingly, this report will be posted at <https://www.hudoig.gov>.

If you have any questions or comments about this report, please do not hesitate to call Kelly Anderson, Audit Director, at (312) 913-8499.

# Executive Summary

## HUD LACKED ADEQUATE OVERSIGHT OF LEAD-BASED PAINT HAZARD REMEDIATION IN PUBLIC HOUSING | 2023-CH-0001

### Purpose

We audited the U.S. Department of Housing and Urban Development's (HUD) oversight of lead-based paint hazard remediation in public housing based on the HUD, Office of Inspector General's (OIG) report on HUD's top management challenges for fiscal year 2020 and HUD's strategic goals and objectives reported in its 2018 through 2022 strategic plan.

The audit objective was to assess HUD's oversight of lead-based paint hazard remediation in public housing.

### Findings

HUD established procedures in the Lead Safe Housing Rule in 1999 to eliminate lead-based paint hazards, as far as practicable, in public housing. However, it did not have a plan to manage lead-based paint and lead-based paint hazards in public housing. Additionally, HUD generally did not monitor whether public housing agencies had implemented lead-based paint hazard reduction and documented the activities at their public housing developments. These weaknesses occurred because HUD relied on public housing agencies to implement their own methods to achieve lead-safe housing, which should have included implementing lead-based paint hazard reduction. Further, instead of monitoring public housing agencies for compliance with the lead-based paint hazard reduction procedures in the Lead Safe Housing Rule, HUD relied on public housing agencies' annual certifications of compliance. Without a plan to manage lead-based paint and lead-based paint hazards in public housing and ensure that public housing agencies implemented lead-based paint hazard reduction, HUD lacked assurance that (1) families with children under 6 years of age residing in public housing were not exposed to lead-based paint hazards and, thus, protected from lead exposure and (2) its procedures for eliminating lead-based paint hazards in public housing were effective.

### Recommendations

We recommend that the General Deputy Assistant Secretary for Public and Indian Housing require the Real Estate Assessment Center in coordination with the Office of Field Operations to (1) develop a plan to manage lead-based paint and lead-based paint hazards in public housing, (2) determine whether public housing agencies identified as having lead-based paint in their housing developments maintain and implement a plan for controlling lead-based paint, and (3) assess the lead-based paint hazard reduction activities performed at 19 developments associated with 18 public housing agencies reviewed that did not implement interim controls or adequately document that lead-based paint had been abated or treated with interim controls. If those reduction activities did not fully abate the lead-based paint, HUD should ensure that the public housing agencies implement interim controls and ongoing maintenance and reevaluation programs.

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## Background and Objective

The U.S. Department of Housing and Urban Development (HUD), Office of Inspector General's (OIG) report on HUD's top management challenges for fiscal years 2019 through 2021 identified HUD's ability to ensure the availability of affordable housing that is decent, safe, sanitary, and in good repair as one of HUD's challenges. For fiscal year 2022, HUD's top management challenges included eliminating hazards from public housing, and safety in assisted housing has been a longstanding challenge for HUD. In addition, HUD's strategic plans for fiscal years 2018 through 2022 identified goals and the related objectives of removing lead-based paint hazards and other health risks from housing units.

There are approximately half a million children in the United States, ages 1-5, with blood lead levels above the level at which the Centers for Disease Control and Prevention recommend that public health actions be initiated. According to the Centers for Disease Control and Prevention, protecting children from exposure to lead is important to lifelong good health. Lead-based paint and lead-contaminated dust are the most hazardous sources of lead for U.S. children, and no safe blood lead level in children has been identified. The effects of lead exposure can cause adverse effects, such as damage to the brain and nervous system, slowed growth and development, and learning and behavioral problems. Even low levels of lead in the blood have been shown to affect intelligence, the ability to pay attention, and academic achievement. The effects of lead exposure cannot be corrected or reversed.

The U.S. Consumer Product Safety Commission issued a ban on lead-containing paint to reduce the risk of lead poisoning in children who may ingest paint chips or peelings. The ban took effect in 1978 and applied to products manufactured on and after February 27, 1978. The United States Congress found that pre-1980 housing stock contained more than 3 million tons of lead in the form of lead-based paint and passed legislation to evaluate lead-based paint hazards in the Nation's housing stock and reduce the threat of childhood lead poisoning in housing owned, assisted, or transferred by the Federal Government.

Congress' national goal is to eliminate lead-based paint hazards in housing as quickly as possible, as established in Section 1002 of the Residential Lead-Based Paint Hazard Reduction Act of 1992. The Act required HUD to establish procedures to eliminate, as far as practicable, the hazards of lead-based paint, which may include present lead hazards, in existing housing covered by an application for mortgage insurance or housing assistance payments.<sup>1</sup> Therefore, HUD established procedures<sup>2</sup> to eliminate lead-based paint hazards in residential properties assisted under the U.S. Housing Act of 1937.<sup>3</sup> The Lead Safe Housing Rule established specific actions or procedures that public housing agencies are required to perform in relation to hazard reduction<sup>4</sup> for lead-based paint and lead-based paint hazards. The Lead

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<sup>1</sup> 42 U.S.C (United States Code) subsection 4822

<sup>2</sup> Lead Disclosure Rule at 24 CFR (Code of Federal Regulations) part 35, subpart A and Lead Safe Housing Rule at 24 CFR part 35, subparts B through R.

<sup>3</sup> The Act was enacted to create a public housing program in which public housing agencies would be responsible for developing, owning, and managing housing projects with Federal funds.

<sup>4</sup> Measures designed to reduce or eliminate human exposure to lead-based paint hazards through methods including interim controls or abatement or a combination of the two. "Interim controls" are measures designed to temporarily reduce human exposure or likely exposure to lead-based paint hazards, including but not limited to specialized cleaning, repairs, maintenance, painting, temporary containment, ongoing monitoring, etc. "Lead abatement" is an activity designed to permanently eliminate or remove lead-based paint and lead-based paint hazards.

Disclosure Rule established procedures for notifications or disclosures of the potential presence of lead-based paint and known lead-based paint hazards in housing.

The Office of Public and Indian Housing administers HUD's public housing program. Public housing was established to provide decent and safe rental housing for eligible low-income families, the elderly, and persons with disabilities. Public housing comes in all sizes and types, from scattered single-family houses to highrise apartments. Nationwide there are approximately 1 million households residing in public housing developments that are managed by about 3,300 local public housing agencies. Public housing agencies own and operate the public housing developments<sup>5</sup> in which such residents reside. The public housing agencies are responsible for managing and operating their housing developments in compliance with all applicable HUD and other Federal regulations.

The audit objective was to assess HUD's oversight of lead-based paint hazard remediation in public housing.

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<sup>5</sup> A public housing development, also known as an asset management project or a project, is a property or collection of properties assisted under Section 9 of the United States Housing Act of 1937. A public housing development may contain several buildings at several different physical locations or properties, each containing multiple units.

## Results of Audit

### FINDING: HUD LACKED ADEQUATE OVERSIGHT OF LEAD-BASED PAINT HAZARD REMEDIATION IN PUBLIC HOUSING

HUD established procedures<sup>6</sup> in the Lead Safe Housing Rule in 1999 to eliminate lead-based paint hazards, as far as practicable, in public housing. However, it has not developed a plan for managing lead-based paint and lead-based paint hazards in public housing. Additionally, HUD generally did not monitor to ensure that public housing agencies had implemented lead-based paint hazard reduction and documented the activities at their public housing developments. These weaknesses occurred because HUD relied primarily on public housing agencies to implement their own methods to achieve lead-safe housing, which should have included implementing lead-based paint hazard reduction. Further, instead of monitoring public housing agencies for compliance with the lead-based paint hazard reduction procedures in the Lead Safe Housing Rule, HUD relied on public housing agencies' annual certifications of compliance with HUD's lead-based paint requirements. Without a plan to manage lead-based paint and lead-based paint hazards in public housing and ensure that public housing agencies implemented lead-based paint hazard reduction, HUD lacked assurance that (1) families with children under 6 years of age residing in public housing were not exposed to lead-based paint hazards and, thus, protected from lead exposure and (2) its procedures for eliminating lead-based paint hazards in public housing were effective.

#### HUD Did Not Have a Plan To Manage Lead-Based Paint in Public Housing

HUD did not have a plan to manage lead-based paint and lead-based paint hazards in public housing. It also had not assessed public housing agencies' progress in eliminating lead-based paint and lead-based paint hazards from their public housing developments. Further, HUD did not have a current estimate of the (1) number of public housing agencies' housing developments and associated units that contained lead-based paint and may have required hazard reduction and (2) resources required to eliminate lead-based paint hazards from public housing agencies' housing developments and associated units. HUD also did not have an estimate of the amount of time it would take for public housing to become lead safe.

In 2010, HUD issued the results of a study, which provided national estimates of the two key measures of existing and accrual capital needs in its public housing program. The 2010 study reported the results of a survey of public housing agencies to estimate the number of public housing units that contained lead-based paint and, thus, required lead-based paint remediation.<sup>7</sup> Specifically, the 2010 study estimated

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<sup>6</sup> Procedures are an established or official way of doing something according to a policy. The Lead Safe Housing Rule established specific actions that public housing agencies are required to perform in relation to lead-based paint and lead-based paint hazards.

<sup>7</sup> Remediation is the act of addressing lead-based paint and lead-based paint hazards to reduce, eliminate, or contain them.

that approximately 62,000 public housing units needed lead-based paint remediation<sup>8</sup> and that the average cost to abate lead-based paint from a housing unit was \$5,000. Therefore, in 2010, it would have cost an estimated \$310 million<sup>9</sup> to remediate lead-based paint in public housing. Because the study was conducted more than 10 years ago, HUD would need current reliable information to adequately determine the number of public housing agencies with public housing developments and associated housing units that contain lead-based paint to (1) assess the extent of lead-based paint and lead-based paint hazards that remain in public housing and (2) reasonably estimate the cost and the amount of time it would take to remediate lead-based paint and lead-based paint hazards in public housing agencies' developments and associated housing units.

HUD's strategic objectives in its 2018 through 2022 strategic plan included removing lead-based paint hazards and other health risks from housing units. The strategic plan primarily focused on the oversight and monitoring activities of HUD's Office of Lead Hazard Control and Healthy Homes, which provides grants to private owners, rather than the Office of Public and Indian Housing, which oversees the public housing program. According to HUD's strategic plan, its priority goal for fiscal years 2019 and 2020 was to protect families from lead-based paint and other health hazards by making an additional 15,400 at-risk housing units healthy and lead safe by the end of fiscal year 2020. To assess its progress in achieving that goal, HUD established a performance metric for tracking the number of at-risk housing units made healthy, physically safe, and lead safe each year through HUD's Lead Hazard Control grants, Healthy Homes grants, and enforcement of the Lead Disclosure Rule.<sup>10</sup> However, public housing agencies' public housing developments are not eligible for funding under Lead Hazard Control and Healthy Homes grants. HUD reiterated its objectives in its 2022 through 2026 strategic plan but also included a provision to track units made lead-safe through the Office of Public and Indian Housing's grant programs.

Further, according to HUD's strategic plans, to prevent lead poisoning in HUD-assisted households<sup>11</sup>, HUD would ensure compliance with lead safety rules through improved enforcement mechanisms, increased community awareness of lead and other health and safety hazards through outreach events, and increased participation in HUD and stakeholder services. HUD's strategy for HUD-assisted households included aligning and enforcing HUD-assisted housing inspections and mitigation measures to consistently address housing-related health and safety hazards<sup>12</sup> across HUD-assisted housing programs. HUD's strategic plans did not include a performance metric for evaluating HUD's overall effectiveness in

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<sup>8</sup> The 2010 study referred to another study that was performed in 1998, in which HUD had estimated that the number of public housing units that required lead-based paint abatement was 430,000. Therefore, the estimate of the number of units requiring abatement in the 2010 study (62,000) was a significant decrease from the number of units requiring abatement reported in the 1998 study (430,000). According to the 2010 study, this reduction was due to various factors, such as units being abated, units being removed from HUD's public housing program, and a change in the methodology for estimating the number of public housing agencies' housing units that required lead-based paint abatement. The study did not provide details as to the proportion of the population attributable to each reduction factor.

<sup>9</sup> 62,000 units at \$5,000 per unit

<sup>10</sup> The Lead Disclosure Rule at 24 CFR 35, subpart A, requires landlords to disclose the presence or possibility of lead-based paint to tenants.

<sup>11</sup> This includes households receiving housing subsidies through HUD's public and multifamily housing programs.

<sup>12</sup> HUD's inspection and mitigation measures are not solely directed toward lead.



making HUD-assisted housing, in particular public housing units, lead safe because the metric did not take into account the total number of public housing units that have lead-based paint.

In 2018, the U.S. Government Accountability Office (GAO) issued a report on lead paint in housing and determined that HUD did not have performance goals and measures to cover the full range of HUD's lead efforts, including its efforts to ensure that housing units in its rental assistance programs were lead safe.<sup>13</sup> However, HUD has not quantified the number of public housing developments and associated units that have lead-based paint, which would be important for establishing performance goals and metrics and to assess the effectiveness of its procedures for remediating lead. Further, it would need to work with the public housing agencies to establish a plan for how they could accomplish the performance goals, especially since HUD's Public Housing Capital Fund or Lead-Based Paint Capital Fund grants would be the primary funding sources for public housing agencies.

Public housing agencies' public housing programs are mainly funded by HUD. HUD's Public Housing Capital Fund program provides annual funding to public housing agencies for developing, financing, and modernizing public housing developments and for management improvements. Public housing agencies may use these funds for lead-based paint hazard remediation but are not required to and often prioritize other capital improvements.<sup>14</sup> In 2018, HUD established the Lead-Based Paint Capital Fund program<sup>15</sup> as the primary funding source to assist public housing agencies in identifying and eliminating lead-based paint hazards in public housing. This program provides competitive grants<sup>16</sup> to public housing agencies to evaluate and reduce lead-based paint hazards in public housing by carrying out activities such as lead-based paint risk assessments, abatement, and interim controls. However, with an annual appropriation of about \$25 million for fiscal years 2018 through 2021<sup>17</sup>, funding for the program was less than 1 percent of HUD's annual Public Housing Capital Fund appropriations of about \$2.75 billion, or about \$100 million of the more than \$11 billion appropriated during the period. If HUD and public housing agencies were to rely solely on these competitive grants to eliminate lead-based paint hazards in public housing, depending on the extent to which lead-based paint remained in public housing, it could take years to achieve lead-safe housing.

Without determining the extent of lead-based paint hazards in public housing and developing and implementing a plan for managing lead-based paint, HUD cannot effectively assess its progress in making

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<sup>13</sup> GAO-18-394, *Lead Paint in Housing: HUD Should Strengthen Grant Processes, Compliance Monitoring, and Performance Assessment*, issued June 19, 2018. As of September 2022, HUD has closed four of the nine GAO recommendations. Of the five open recommendations, two relate to public housing. The two open recommendations were for HUD's Office of Public and Indian housing to (1) establish a plan to mitigate and address risks within HUD's lead paint compliance monitoring processes and (2) develop and document procedures to ensure that HUD staff take consistent and timely steps to address issues of public housing agency noncompliance with lead paint regulations.

<sup>14</sup> For years, capital needs have outpaced available funding in the public housing program, leading to a backlog of maintenance and repair activities distributed broadly across the program.

<sup>15</sup> As authorized under the Consolidated Appropriations Act, 2017 (Public Law 115-31, enacted May 5, 2017).

<sup>16</sup> Grants are awarded competitively based on the available funding. The funding amount is not linked to the overall need in the program and public housing agencies are not guaranteed that they will be awarded a grant, even if there is need.

<sup>17</sup> In the 2020 appropriation, \$45 million was made available for competitive grants for public housing agencies to evaluate and reduce lead-based paint hazards and other hazards including carbon monoxide and mold. Of the \$45 million, no less than \$25 million was to be used for lead-based paint hazard related activities.

assisted units lead safe. Additionally, HUD would be challenged in effectively communicating its funding needs to Congress to address lead-based paint in the public housing program. HUD would also be challenged in assisting public housing agencies in identifying available resources to cover the cost of lead-based paint hazard reduction due to the lack of funding to address lead and the backlog of capital needs in public housing, which may not be addressed without adequate information regarding the extent of the issue.

## **HUD Generally Did Not Monitor Whether Public Housing Agencies Had Implemented Lead-Based Paint Hazard Reduction and Maintained Documentation of These Activities**

HUD generally did not monitor whether public housing agencies had implemented lead-based paint hazard reduction in their developments and maintained documentation of these activities as required by the Lead Safe Housing Rule.<sup>18</sup> Specifically, part of the procedures in the Lead Safe Housing Rule required public housing agencies to engage in lead-based paint hazard reduction by abating identified lead-based paint or implementing interim controls<sup>19</sup> and related ongoing maintenance and reevaluation activities until the lead-based paint was abated. However, HUD generally did not monitor public housing agencies for compliance with this requirement or evaluated public housing agencies' remediation measures.

In 2018 and 2019, HUD awarded Lead-Based Paint Capital Fund grants to 58 public housing agencies to abate or remediate lead-based paint or lead-based paint hazards in their housing developments. These public housing agencies identified a total of 92 developments, collectively, in which they would use the grants to abate lead-based paint or perform interim controls. Because HUD does not track public housing agencies' housing developments that contain lead-based paint, we reviewed lead-based paint abatement documentation and maintenance records obtained from 19<sup>20</sup> of the 58 public housing agencies associated with 20 of the 92 developments. We reviewed these records to determine the lead activities that the public housing agencies had performed before receiving lead grants to determine whether they (1) partially abated lead-based paint in the past or (2) performed required interim controls and ongoing maintenance and reevaluation activities in their developments that had been identified as having lead-based paint.

The public housing agency for only 1 of the 20<sup>21</sup> developments provided sufficient documentation showing that it had a history of abating identified lead-based paint and lead-based paint hazards or performing interim controls and ongoing maintenance and reevaluation activities at that development as required by the Lead Safe Housing Rule. The public housing agencies for the remaining 19 developments<sup>22</sup> (1) lacked adequate documentation showing that previously identified lead-based paint had been abated or treated with interim controls and subjected to ongoing maintenance and reevaluation activities; (2) provided no evidence showing that identified lead-based paint had been

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<sup>18</sup> The Lead Safe Housing Rule, subpart L.

<sup>19</sup> Interim controls are measures designed to temporarily reduce human exposure or likely exposure to lead-based paint hazards, including but not limited to specialized cleaning, repairs, maintenance, painting, temporary containment, ongoing monitoring, etc.

<sup>20</sup> Of the 19 public housing agencies, one had received a Lead-Based Paint Capital Fund grant for two of its developments.

<sup>21</sup> See appendix B for a summary of our review of the 20 developments.

<sup>22</sup> The 19 developments were associated with 18 public housing agencies.

abated and acknowledged that they had not performed interim controls, despite having knowledge of lead-based paint in the units; or (3) did not perform the required lead-based paint inspections in a timely manner<sup>23</sup> and, thus, did not identify lead-based paint that was required to be abated or treated using interim controls.

We noted that the public housing agency for 1 of the remaining 19 developments had managed the development as if it was lead free<sup>24</sup> for more than 30 years. Specifically, the public housing agency relied on the results of a lead-based paint chip test from 1987 that reviewed only 10 of the development's 125 units and that were not in the form of an inspection report.<sup>25</sup> In 2019, the development had a lead-based paint inspection performed as part of its Lead Based Paint Capital Fund grant activities, which identified many lead-based paint hazards. Had the public housing agency performed the lead-based paint inspection before 2019, interim controls and ongoing maintenance activities would have been required.

Further, the public housing agencies for the remaining 19 developments either lacked evidence or did not maintain adequate documentation showing that they complied with the lead-based paint hazard reduction requirement of the Lead Safe Housing Rule. If these public housing agencies used their grant funds to perform lead-based paint hazard reduction other than full lead-based paint abatement<sup>26</sup>, HUD needs to monitor these public housing agencies' lead-based paint hazard reduction activities to ensure that they implement the required interim controls and ongoing maintenance and reevaluation activities in their developments.

While our review was limited to a sample of public housing agencies that received Lead-Based Paint Capital Fund grants, we note that all public housing agencies are required to identify lead-based paint and comply with the lead-based paint hazard reduction requirements in the Lead Safe Housing Rule, regardless of whether they were awarded Lead-Based Paint Capital Fund grants. Therefore, HUD lacked assurance that (1) its procedures for eliminating lead-based paint hazards in public housing were effective and (2) children under 6 years of age residing in public housing were protected from exposure to lead-based paint hazards.

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<sup>23</sup> HUD's regulations at 24 CFR 35.1115(a) required a lead-based paint inspection of all applicable public housing to be completed no later than September 15, 2000. However, the inspections for three developments were completed around the time the associated public housing agency applied for a Lead-Based Paint Capital Fund grant. If the required inspections had been completed by September 15, 2000, the associated public housing agencies should have been performing lead-based paint hazard reduction activities at these developments. We previously audited HUD's oversight of lead-based paint inspections and made recommendations for improvement (HUD OIG audit report number 2018-CH-0002). Therefore, we made no recommendations in this audit report regarding the oversight of lead-based paint inspections.

<sup>24</sup> HUD's regulations at 24 CFR 35.115(a) state that subparts B through R of this part do not apply to residential property found not to have lead-based paint by a lead-based paint inspection conducted in accordance with section 35.1320(a). If a development was determined to be lead free, based on a sufficient lead inspection, it would be exempt from the requirements of the Lead Safe Housing Rule such as visual assessments, interim controls, ongoing maintenance, etc.

<sup>25</sup> According to chapter 7 of HUD's Guidelines for the Evaluation of Lead-Based Paint Hazards in Housing, the required sample size for a lead-based paint inspection would have been either 26 or 47 based on the age of each building in the development. Additionally, the results of lead testing must be in the form of an inspection report.

<sup>26</sup> Since the lead-based paint would not be removed, it could become a lead-based paint hazard.

## HUD Relied on Public Housing Agencies To Implement Their Own Strategies for Controlling Lead-Based Paint at Their Public Housing Developments

Management officials and staff from multiple HUD program offices, including the Office of Public and Indian Housing's Offices of Public Housing Investments and Field Operations, HUD's Offices of Lead Hazard Control and Healthy Homes and General Counsel, acknowledged that HUD primarily relied on public housing agencies to implement their own strategies for controlling lead-based paint at their housing developments. HUD's Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing<sup>27</sup> states that public housing agencies should track their public housing units that (1) contain lead-based paint and lead-based paint hazards, (2) have been abated and, thus, are lead safe, and (3) were treated using interim controls and require ongoing maintenance. The agencies should also continuously assess and plan for the resources needed for lead-based paint hazard reduction. However, HUD had not verified whether each public housing agency had established and implemented its own plan for addressing lead-based paint.

According to the Deputy Assistant Secretary for Public Housing Investments and a program analyst for the Office of Public Housing and Voucher Programs, HUD generally had not monitored public housing agencies for compliance with the lead-based paint hazard reduction requirement of the Lead Safe Housing Rule. Instead, it relied on public housing agencies to self-regulate and self-certify their compliance with the Rule.<sup>28</sup> Specifically, a senior advisor for the Office of Lead Hazard Control and Healthy Homes stated that when the statutory requirements were implemented by way of the Lead Safe Housing Rule, HUD program officials at the time believed that public housing agencies would comply with HUD's requirements regarding lead-based paint to the greatest extent possible. However, public housing agencies had discretion as to what remediation activities would be taken at their developments and what activities would be prioritized. The senior advisor said that HUD trusted public housing agencies to test their developments for lead-based paint and identify lead-based paint hazards, and if applicable, (1) determine the appropriate remediation techniques for their developments and (2) ensure that the required and appropriate interim controls or abatement activities were performed. These activities were required as part of the Lead Safe Housing Rule.<sup>29</sup>

According to a program analyst from the Office of Public Housing and Voucher Programs, when HUD enacted the requirements regarding lead-based paint in public housing, public housing agencies maintained most records in paper form. Further, according to the Deputy Assistant Secretary for Public Housing Investments and a program analyst for the Office of Public Housing and Voucher Programs, since the enactment of the Lead Safe Housing Rule in 1999, HUD generally had not collected or reviewed public housing agencies' documentation showing their lead-based paint hazard reduction efforts. HUD management officials said that it would also be challenging for HUD to determine whether a public housing agency complied with lead-based paint hazard reduction requirements because a public housing

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<sup>27</sup> The U.S. Department of Housing and Urban Development Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, Office of Healthy Homes and Lead Hazard Control, second edition, July 2012.

<sup>28</sup> Annually, public housing agencies certify that they will comply with the Lead Safe Housing Rule at 24 CFR part 35.

<sup>29</sup> See 24 CFR 35.1115(a), 24 CFR 35.1120(a), and 24 CFR 35.1120(b) in appendix C.

agency may have thousands of pages of documents, some dating from before 2000<sup>30</sup>, thereby creating a massive paperwork and data collection concern. In addition, according to a program analyst from the Office of Public Housing and Voucher Programs, employee turnover at public housing agencies can create a situation where public housing agencies' management believe that lead-based paint had been removed and control activities would no longer be required, when that may not be the case. Further, according to the Deputy Assistant Secretary for the Office of Public Housing Investments, some public housing agencies may have had housing units, in which the lead-based paint had been encapsulated<sup>31</sup> rather than removed, and that encapsulation may be at the end of its useful life.

Additionally, according to the Deputy Assistant Secretary for Public Housing Investments, because HUD did not track or monitor public housing agencies' lead-hazard reduction activities performed at their housing developments, HUD does not know how many public housing developments and associated units had lead-based paint encapsulated rather than abated. During our review of the 19 public housing agencies that had been awarded Lead-Based Paint Capital Fund grants, we determined, based on the associated applications, that 1 of the 19 public housing agencies had planned to use its grant funds to reinspect and abate units in which the lead-based paint had been previously encapsulated because the encapsulation had reached the end of its useful life. However, the public housing agency lacked documentation showing which housing units had lead-based paint previously encapsulated.

Program management officials from the Office of Field Operations said that due to the lack of compiled data or tracking of housing developments that contained lead-based paint, HUD would have to do a case-by-case review of paper documentation, if the documentation still existed, to determine the extent of lead-based paint and lead-based paint hazards in public housing and to assess public housing agencies' progress in removing lead-based paint and reducing hazards from public housing. Further, according to the Director of the Office of Field Operations and a program analyst from the Office of Public Housing and Voucher Programs, although HUD had been working on educating public housing agency staff regarding the continued need for lead-based paint control activities, it continued to struggle with oversight, given the data problem and staffing resources available within the Office of Public and Indian Housing to mitigate this issue, while also maintaining adequate oversight of other program activities and functions.

As the need for safe, affordable housing increases, HUD should ensure that public housing agencies' public housing developments remain safe housing options for families with children under 6 years of age. Although it may be challenging for HUD to track the units that contain lead-based paint to determine the extent of the presence of lead in public housing, it is imperative for HUD to implement a plan to ensure that public housing agencies prioritize and implement lead-based paint hazard reduction at their developments, as applicable, to ensure that public housing is eventually free of lead-based paint hazards

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<sup>30</sup> Some public housing agencies had inspected their public housing developments for lead-based paint and lead-based paint hazards before the enactment of the Lead Safe Housing Rule.

<sup>31</sup> Encapsulation is the process that makes lead-based paint inaccessible by providing a barrier between the lead-based paint and the environment. This barrier is formed using a liquid-applied coating (with or without reinforcement materials) or an adhesively bonded covering material. The estimated useful life for encapsulation is approximately 20 years. However, durability of the encapsulation depends on the condition of the previous paint layers. It also requires periodic monitoring and maintenance because lead has not been removed.

and safe for families with children under 6 years of age and develop metrics to evaluate the effectiveness of its efforts.

## Conclusion

HUD did not have a plan to manage lead-based paint and lead-based paint hazards in public housing. It also did not monitor whether public housing agencies had implemented lead-based paint hazard reduction activities at their public housing developments and maintained documentation of the activities. HUD believed that public housing agencies had their own strategies to achieve lead-safe housing developments and relied on public housing agencies to implement those strategies. Without adequate oversight of lead-based paint hazard reduction in public housing, to include a plan to manage lead-based paint and lead-based paint hazards in public housing and ensure that public housing agencies implemented lead-based paint hazard reduction, HUD lacked assurance that (1) public housing agencies protected families with children under 6 years of age from lead exposure and (2) its procedures for eliminating lead-based paint in public housing were effective.

## Recommendations

We recommend that the General Deputy Assistant Secretary for Public and Indian Housing require the Real Estate Assessment Center in coordination with the Office of Field Operations to

- 1A. Develop and implement a plan to manage lead-based paint and lead-based paint hazards in public housing.
- 1B. Determine the number of developments and associated units that contain lead-based paint and lead-based paint hazards.
- 1C. Determine the cost to eliminate or control the lead-based paint and lead based paint hazards in public housing and the timeframe to complete such work based on the existing funding levels and strategies that could accelerate the timeframe.
- 1D. Implement adequate procedures and controls to ensure that public housing agencies appropriately identify and control lead-based paint and eliminate lead-based paint hazards in public housing.
- 1E. Determine whether the public housing agencies identified as having lead-based paint hazards in their housing developments maintain and implement a plan for managing lead-based paint. For any public housing agency that does not have a plan for the management of lead-based paint in its public housing developments, as appropriate, HUD should inform the public housing agency that it should develop and implement its own plan.
- 1F. Assess the lead-based paint hazard reduction activities performed at the 19 developments associated with 18 public housing agencies reviewed that did not implement interim controls and ongoing maintenance and reevaluation activities or adequately document that previously identified lead-based paint had been abated or treated with interim controls and subjected to ongoing maintenance and reevaluation activities. If those reduction activities did not fully abate the lead-based paint, HUD should ensure that the public housing agencies implement interim controls and ongoing maintenance and reevaluation programs and maintain required documentation.

## Scope and Methodology

We performed our audit work remotely from June 2020 through June 2022. The audit covered the period October 1, 2016, through September 30, 2019, but we expanded the audit period to June 2022 to assess whether HUD had a plan for overseeing public housing agencies' lead-based paint hazard remediation activities and to review HUD's top management challenges for 2022 and HUD's strategic plan for 2022 through 2026.

To accomplish our audit objective, we had discussions with HUD program management officials and staff. In addition, we reviewed

- 42 U.S.C. (United States Code) 63, 1437d, and 1437g; Office of Management and Budget Circular A-123; the Government Performance and Results Act; Standards for Internal Control in the Federal Government; the Lead Safe Housing Rule at 24 CFR (Code of Federal Regulations) part 35; HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing; the Federal Action Plan To Reduce Childhood Lead Exposure; HUD's Office of Public and Indian Housing's guidance on implementing the Lead Safe Housing Rule; and HUD's notice of funding availability for Lead-Based Paint Capital Fund grants.
- HUD's 2018-2022 and 2022-2026 strategic plans; HUD's 2018, 2019, 2020, and 2021 annual performance plans; HUD's policies and procedures for awarding Lead-Based Paint Capital Fund grants; HUD's policies and procedures for lead-based paint oversight; HUD office organizational charts; the roles and responsibilities for HUD offices regarding lead-based paint oversight in public housing; and lists of applicants and recipients of a Lead-Based Paint Capital Fund grant.
- Lead-Based Paint Capital Fund grant applications; lead-based paint inspections, maintenance, and remediation records; public housing agencies' annual and 5-year plans; HUD's Capital Needs in Public Housing report; and information about public housing developments from HUD's Energy and Performance Information Center and HUD's Inventory Management System-Public and Indian Housing Information Center.

We also assessed the relevant internal controls, to the extent necessary, to determine whether HUD had developed and implemented policies, procedures, and a plan to achieve the elimination of lead-based paint hazards in public housing.

HUD does not track the public housing developments and associated housing units that contain lead-based paint. Therefore, we used the universe of developments that were awarded a Lead-Based Paint Capital Fund grant. Because these developments were expected to have lead-based paint present, interim controls and ongoing lead-based paint maintenance should have been performed and documented by the public housing agencies as required<sup>32</sup>, thereby allowing us to test for whether the public housing agencies engaged in hazard reduction as required by the Lead Safe Housing Rule.

In 2018 and 2019, HUD awarded Lead-Based Paint Capital Fund grants to 92 housing developments associated with 58 public housing agencies to abate or remediate lead-based paint. We randomly

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<sup>32</sup> See appendix C



selected 20<sup>33</sup> of the 92 developments to determine whether the associated public housing agencies had records showing that identified lead-based paint and lead-based paint hazards in their housing developments had been either abated or subjected to interim controls, ongoing maintenance, and reevaluation activities as required by the Lead Safe Housing Rule before obtaining the grant. We opted for a random sample instead of a 100 percent review of the universe because of the anticipated volume and age of the public housing agencies' records, which could span more than 20 years. Also, because we selected this sampling method, the results of our review cannot be projected to the universe.

We conducted the audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective(s). We believe that the evidence obtained provides a reasonable basis for our finding and conclusion based on our audit objective.


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<sup>33</sup> The 20 developments were associated with 19 public housing agencies. One public housing agency received a Lead-Based Paint Capital Fund grant for work at two of its developments.



# Appendixes

## APPENDIX A: AUDITEE COMMENTS AND OIG'S EVALUATION



**U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT**  
WASHINGTON, DC 20410-5000

OFFICE OF PUBLIC AND INDIAN HOUSING

MEMORANDUM FOR: Kelly Anderson, Regional Inspector General for Audit, 5AGA

FROM: Ashley L. Sheriff, Deputy Assistant Secretary for HUD's Real Estate Assessment Center, PX **Ashley L. Sheriff**

SUBJECT: Response to Discussion Draft Audit Report – HUD Lacked Adequate Oversight of Lead-based Paint Hazard Remediation in Public Housing. OIG Audit Report 2022-CH-XXXX

Digitally signed by Ashley L. Sheriff  
DN: CN = Ashley L. Sheriff email = Ashley.L.Sheriff@hud.gov C = US  
O = REAC, OU = PIH  
Date: 2022.10.07 20:56:50 -0400

Thank you for the opportunity to review and discuss the subject draft Office of Inspector General (OIG) audit memorandum. I also thank your staff for their professionalism in the handling of all aspects of this audit and the extension you provided for comments so that multiple offices within the Office of Public and Indian Housing (PIH) could coordinate. I have carefully reviewed your report and wish to convey that PIH takes the issue of exposure to lead-based paint and lead hazards in public housing seriously.

Because this report focuses on oversight of public housing and lead-based paint evaluations, the recommendations will be implemented by the Office of Public and Indian Housing (PIH). The primary office responsible will be HUD's Real Estate Assessment Center (REAC), with assistance from PIH's Office of Field Operations (OFO). OIG may remove PIH's Office of Public Housing and Voucher Programs (OPHVP) from the audit. PIH will continue to work closely with HUD's Office of Lead Hazard Control and Healthy Homes (OLHCHH) to ensure that the recommendations support the Departments' regulations and goals for achieving lead-safe housing.

OIG's conclusions align with our own monitoring of Lead Safe Housing Rule compliance in public housing. Most PHAs report that they completed lead-based paint testing and abatement in the 1990s but are unable to support that with available file records. Because the technology of lead-based paint inspections has improved, new lead-based paint evaluations have identified lead-based paint and/or lead-based paint hazards not previously known. Additionally, in some cases, abatement performed over 20 years ago has degraded over time.

In 2010, PHAs reported a capital needs backlog of \$26 billion, of which over \$306 million was estimated for additional lead abatement. More recent estimates of the backlog, some performed locally, suggest the backlog may be much larger. Assuming the lead abatement backlog has also increased since 2010, the amount of funding required to update lead-based paint testing and perform all remaining lead abatement is likely higher.

[www.hud.gov](http://www.hud.gov)      [espanol@hud.gov](mailto:espanol@hud.gov)

 **Comment 1 >**

 **Comment 2 >**

Since 2017, PIH has improved its oversight of lead-based paint compliance, awarded new competitive funds for lead hazard evaluation and control, and improved training and technical assistance. PIH has developed better tracking tools, automated processes, and created electronic records of lead testing results. While this has greatly improved HUD's ability to monitor compliance, more work remains to ensure that all pre-1978 units are lead safe. HUD's new NSPIRE program will improve oversight of units covered by the Lead Safe Housing Rule once effective. I look forward to working with the OIG on improving the safety of public housing.

- cc. Dominique Blom, General Deputy Assistant Secretary, PIH  
Danielle Bastarache, Deputy Assistant Secretary, PIH Office of Public Housing and Voucher Programs  
Felicia Gaither, Deputy Assistant Secretary, PIH Office of Field Operations  
Matthew Ammon, Director, Office of Lead Hazard Control and Healthy Homes

## OIG Evaluation of Auditee Comments

- Comment 1            We modified the report to remove the Office of Public Housing and Voucher Programs as one of the action offices for the recommendations. The action office for the recommendations is HUD’s Real Estate Assessment Center in coordination with the Office of Field Operations.
- Comment 2            We acknowledge that since 2017, HUD has made progress in its oversight of lead-based paint compliance. However, as HUD stated, more work remains to ensure that all pre-1978 units are lead safe. We look forward to working with HUD in addressing our recommendations.

## APPENDIX B: SUMMARY OF PUBLIC HOUSING DEVELOPMENT DEFICIENCIES

Sample #	Untimely lead-based paint inspection	Lacked adequate support of abatement activities	Lacked adequate support of interim controls or ongoing maintenance	Did not abate lead-based paint or perform interim control activities	Complied with Lead Safe Housing Rule <sup>34</sup> Y/N
1				X	N
2		X	X		N
3		X			N
4			X		N
5		X	X		N
6		X			N
7			X		N
8					Y
9			X		N
10			X		N
11	X			X	N
12			X		N
13				X	N
14			X		N
15				X	N
16				X	N
17	X			X	N
18				X	N
19			X		N
20	X			X	N
<b>Totals</b>	<b>3</b>	<b>4</b>	<b>9</b>	<b>8</b>	<b>1</b> <b>19</b>

<sup>34</sup> This column represents our assessment of whether the public housing agency complied with the lead-based paint inspection, abatement, interim controls or ongoing maintenance, and documentation requirements of the Lead Safe Housing Rule.

## APPENDIX C: FEDERAL REQUIREMENTS

The United States Code at 42 U.S.C. 4822 requires the Secretary of Housing and Urban Development to establish procedures to eliminate, as far as practicable, the hazards of lead-based paint poisoning with respect to any existing housing, which may present such hazards and which is covered by an application for mortgage insurance or housing assistance payments under a program administered by the Secretary or otherwise receives more than \$5,000 in project-based assistance under a Federal housing program. Beginning on January 1, 1995, such procedures should apply to all such housing that constitutes target housing, as defined in section 4851b of this title, and should provide for appropriate measures to conduct risk assessments, inspections, interim controls, and abatement of lead-based paint hazards.

The United States Code at 42 U.S.C. 4851b defines target housing as any housing constructed before 1978, except housing for the elderly or persons with disabilities or any zero-bedroom dwelling (unless any child who is less than 6 years of age resides or is expected to reside in such housing).

The United States Code at 42 U.S.C. 1437d(f)(1) states that each contract for contributions for a public housing agency must require that the agency maintain its public housing in a condition that complies with standards, which meet or exceed the housing quality standards established under paragraph (2).

The United States Code at 42 U.S.C. 1437d(f)(2) states that the Secretary must establish housing quality standards under this paragraph, which ensure that public housing dwelling units are safe and habitable. Such standards should include requirements relating to habitability, including maintenance, health and sanitation factors, condition, and construction of dwellings.

HUD's regulations at 24 CFR 35.110 define abatement as any set of measures designed to permanently eliminate lead-based paint or lead-based paint hazards (see definition of "permanent"). Abatement includes the removal of lead-based paint and dust-lead hazards, the permanent enclosure or encapsulation of lead-based paint, the replacement of components or fixtures painted with lead-based paint, and the removal or permanent covering of soil-lead hazards.

HUD's regulations at 24 CFR 35.110 define interim controls as a set of measures designed to temporarily reduce human exposure or likely exposure to lead-based paint hazards. Interim controls include but are not limited to repairs, painting, temporary containment, specialized cleaning, clearance, ongoing lead-based paint maintenance activities, and the establishment and operation of management and resident education programs.

HUD's regulations at 24 CFR 35.115(a) state that subparts B through R of this part do not apply to the following: (1) a residential property for which construction was completed on or after January 1, 1978, or in the case of jurisdictions, which banned the sale or residential use of lead-containing paint before 1978, an earlier date as HUD may designate; (2) a zero-bedroom dwelling unit, including a single-room-occupancy dwelling unit; (3) housing for the elderly or a residential property designated exclusively for persons with disabilities, except this exemption should not apply if a child less than 6 years of age resides or is expected to reside in the dwelling unit (see definitions of "housing for the elderly" and "expected to reside" in 24 CFR 35.110); and (4) residential property found not to have lead-based paint by a lead-based paint inspection conducted in accordance with section 35.1320(a). Results of additional test(s) by a certified lead-based paint inspector may be used to confirm or refute a previous finding.

HUD's regulations at 24 CFR 35.175 state that the designated party, as specified in subparts C, D, and F through M of this part, should keep a copy of each notice, evaluation, and clearance or abatement report required by subparts C, D, and F through M of this part for at least 3 years. Those records applicable to a portion of a residential property, for which ongoing lead-based paint maintenance, reevaluation activities, or both are required, must be kept and made available for HUD's review until at least 3 years after such activities are no longer required.

HUD's regulations at 24 CFR 35.1100 state that the purpose of subpart L is to establish procedures to eliminate, as far as practicable, lead-based paint hazards in residential property assisted under the U.S. Housing Act of 1937 (42 U.S.C. 1437 et seq.) but not including housing assisted under Section 8 of the 1937 Act.

HUD's regulations at 24 CFR 35.1115(a) state that a lead-based paint inspection must be conducted in all public housing unless a lead-based paint inspection that meets the conditions of subsection 35.165(a) has already been completed. If a lead-based paint inspection was conducted by a lead-based paint inspector who was not certified, the public housing agency should review the quality of the inspection, in accordance with quality control procedures established by HUD, to determine whether the lead-based paint inspection has been properly performed and the results are reliable. Lead-based paint inspection of all housing to which this subpart applies must be completed not later than September 15, 2000.

HUD's regulations at 24 CFR 35.1120(a) state that each public housing agency must, in accordance with section 35.1325, abate all lead-based paint and lead-based paint hazards identified in the evaluations conducted under 24 CFR 35.1115. The public housing agency should abate lead-based paint and lead-based paint hazards in accordance with 24 CFR 35.1325 during physical improvements conducted under modernization.

HUD's regulations at 24 CFR 35.1120(b) state that in all housing for which abatement of all lead-based paint and lead-based paint hazards required in paragraph (a) of this section has not yet occurred, each public housing agency must conduct interim controls, in accordance with 24 CFR 35.1330, of the lead-based paint hazards identified in the most recent risk assessment.

HUD's regulations at 24 CFR 35.1120(c) state that the public housing agency must incorporate ongoing lead-based paint maintenance and reevaluation activities into regular building operations in accordance with section 35.1355.

HUD's regulations at 24 CFR 35.1130(f) state that if the risk assessment conducted under paragraph (a) of this section identifies lead-based paint hazards and previous evaluations of the building conducted under section 35.1320 did not identify lead-based paint or lead-based paint hazards, the public housing agency must conduct a risk assessment of other units of the building in accordance with 24 CFR 35.1320(b) and should conduct interim controls of identified hazards in accordance with the schedule provided in 24 CFR 35.1120(c).

HUD's regulations at 24 CFR 35.1135 state that a public housing agency may use financial assistance received under the modernization program for the notice, evaluation, and reduction of lead-based paint hazards in accordance with section 968.112 of this title.

HUD's regulations at 24 CFR 35.1300 state that the purpose of subpart R is to provide standards and methods for evaluation and hazard reduction activities required in subparts B, C, D, and F through M of this part.

HUD's regulations at 24 CFR 35.1310 state that further guidance information regarding evaluation and hazard reduction activities described in this subpart is found in the following: (a) The HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing.

HUD's regulations at 24 CFR 35.1320(a) states that lead-based paint inspections shall be performed in accordance with methods and standards established either by a State or Tribal program authorized by the Environmental Protection Agency under 40 CFR 745.324, or by the Environmental Protection Agency at 40 CFR 745.227(b) and (h).

HUD's regulations at 24 CFR 35.1330 state that interim controls of lead-based paint hazards include paint stabilization of deteriorated paint, treatments for friction and impact surfaces where levels of lead dust are above the levels specified in 24 CFR 35.1320, dust control, and lead-contaminated soil control. Paragraph (a)(1) states that only those interim control methods identified as acceptable methods in a current risk assessment report should be used to control identified hazards.

HUD's regulations at 24 CFR 35.1325 state that abatement should be performed in accordance with methods and standards established either by a State or Indian tribe under a program authorized by the Environmental Protection Agency (EPA) or by EPA at 40 CFR 745.227(e) and should be completed by achieving clearance in accordance with section 35.1340. If encapsulation or enclosure is used as a method of abatement, ongoing lead-based paint maintenance activities must be performed as required by the applicable subpart of this part in accordance with section 35.1355.

HUD's regulations at 24 CFR 35.1340(c) state that when clearance is required, the designated party should ensure that a clearance report is prepared that provides documentation of the hazard reduction or maintenance activity as well as the clearance examination. When abatement is performed, the report should be an abatement report in accordance with 40 CFR 745.227(e)(10).

HUD's regulations at 24 CFR 35.1355 provide that maintenance activities must be conducted in accordance with paragraph (a)(2)(6) of this section, except as provided in paragraph (a)(1) of this section.

1. Maintenance activities need not be conducted in accordance with this section if a lead-based paint inspection indicates that no lead-based paint is present in the dwelling units, in common areas, and on exterior surfaces or a clearance report prepared in accordance with section 35.1340(a) indicates that all lead-based paint has been removed.

2. A visual assessment for deteriorated paint, bare soil, and the failure of any hazard reduction measures must be performed at unit turnover and every 12 months.

HUD's Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, chapter 6, section IV, subpart C.3, provides that the owner or manager should keep the following forms or reports to facilitate and document the lead-safe maintenance program:

- Reports of visual assessments.

- A log of the dates of visual assessments.
- An inventory of lead-based paint testing results or presumption of lead-based paint or hazards.
- An inventory of lead hazard controls, if any.
- Lead-safe maintenance work orders, if used.
- Reports of clearance examinations.

HUD's Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, chapter 11, section II, subpart N, provides that lead hazard evaluation, lead hazard control, and maintenance and monitoring activities associated with interim controls must be documented. Several specific documents are of particular importance.

- Risk Assessment and or Inspection or Testing Reports. These documents record the findings of any risk assessment or inspection, including any inspection or testing of painted surfaces and the collection and analysis of samples for determination of the lead content in dust, soil, and/or water. A risk assessment that finds no lead-based paint hazards would also justify issuance of a report.
- Lead Hazard Control Plan. This document explains the schedule of hazard control actions in multi-family housing.
- Notices to Occupants. This includes copies of notices to occupants of the results of hazard evaluations (risk assessments, lead-based paint inspections, or paint testing) and the results of lead hazard reduction activities, including clearance.
- Description of Work Done. For future reference, such as to help them implement the lead hazard control plan effectively, owners should have on file a written description of the nature and locations of the work, its starting and ending dates, who performed it, and any specific suggestions for monitoring. Owners or their property managers who performed, or whose employees performed, renovation work covered by the EPA's Lead Renovation, Repair and Painting Rule (RRP) must keep all records necessary to demonstrate compliance with that rule for at least 3 years after the end of the renovation (40 CFR 745.86). If the renovation work was performed by an outside firm, the owner or property manager should arrange have ongoing access to those records; if the outside firm is planning to dispose of the records at or after the end of the 3-year period, the owner or property manager should arrange to obtain the records for further use in implementing the lead hazard control plan.
- Clearance Examination Reports. These documents record the basis for clearance of the property so that it is ready for occupancy. If the housing (or the renovation) is not federally-assisted, the renovation firm's client (typically, the property owner or manager) must be provided a copy of the dust sampling report within 30 days of the completion of the renovation; if the housing (or the renovation) is federally assisted, the property owner or manager must send the report to the affected occupants within 15 days. Cleaning verification is different than clearance; both require documentation.
- Reevaluation Reports. These reports indicate whether the hazard control measures are still in satisfactory condition and whether the dwelling is still in a lead-safe condition. If problems are identified, they prompt corrective action.
- Maintenance and Monitoring Log. This log records the results of the property owner's or property manager's monitoring visits. Any repairs made as a result of these visits, or notices of defects from occupants, should also be recorded.
- Other Applicable Records. Retain records of worker training in lead-safe work practices, any personal air monitoring, if performed, and correspondence with state and local government



agencies on matters such as childhood lead poisoning cases, regulatory compliance (e.g., HUD Lead Safe Housing Rule, EPA's RRP rule, Occupational Safety and Health Administration's (OSHA) Lead in Construction standard, EPA/state/tribal waste and lead regulations), or other related matters.

HUD's Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, chapter 13, section IX, provides that the owner and contractor should both maintain documentation of interim control or abatement measures. Because the lead is not removed, appropriate protective measures must be taken if the encapsulant fails or if the building is renovated or demolished. Although it would be possible to label existing lead-based painted surfaces prior to encapsulation, the warning would likely be hidden, since it would be covered by the encapsulant. A chemical reaction between the marking substance and the encapsulant could cause the encapsulant to fail. Therefore, drawings showing locations of lead-based paint should be mounted on a wall of a basement, storage closet, or utility room. Records of both the initial installation and reexaminations should be provided to a new owner at the time of property transfer. The following information describing the initial application should be included with the drawings kept in the building:

- Type of encapsulant and product name.
- Exact location of encapsulant.
- Product label and or copy of manufacturer's technical product information.
- Material safety data sheet for all products used.
- Contractor name.
- Date of application.

The owner or local agency should keep the visual monitoring document. Each document should include the name of the person performing the periodic visual monitoring, the date of the visual monitoring, the condition of coating and signs of wear or deterioration, and results of any leaded dust tests performed. If failure was observed during visual assessments or other observations by maintenance and repair workers, or during periodic monitoring and reevaluation, the reasons for failure (if known), corrective actions recommended or taken to repair failures, and any other information pertinent to the maintenance of the encapsulant should be included.