



OFFICE of
INSPECTOR GENERAL

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UNITED STATES DEPARTMENT OF
HOUSING AND URBAN DEVELOPMENT

The Cuyahoga Metropolitan Housing Authority Did Not Have Adequate Oversight of Lead- Based Paint in Its Public Housing

Audit Report Number: 2024-CH-1002

July 12, 2024

Date: July 12, 2024

To: Brian D. Murray
Director of Public Housing Hub, 5DPH

From: **//signed//**
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Subject: The Cuyahoga Metropolitan Housing Authority, Cleveland, OH, Did Not Have Adequate Oversight of Lead-Based Paint in Its Public Housing

Attached is the U.S. Department of Housing and Urban Development (HUD), Office of Inspector General's (OIG) final results of our audit of the Cuyahoga Metropolitan Housing Authority's oversight of lead-based paint in its 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, as amended, 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.

Highlights

The Cuyahoga Metropolitan Housing Authority Did Not Have Adequate Oversight of Lead-Based Paint in Its Public Housing | 2024-CH-1002

What We Audited and Why

We audited the Cuyahoga Metropolitan Housing Authority's management of lead-based paint in its public housing program based on our assessment of the risks of lead-based paint in public housing. The risk factors assessed included the age of buildings, the number of units, household demographics, and reported cases of childhood lead poisoning.

The U.S. Department of Housing and Urban Development's (HUD) Lead Safe Housing Rule (LSHR) established specific actions or procedures that public housing agencies (PHA) are required to perform in relation to hazard reduction¹ for lead-based paint and lead-based paint hazards. The LSHR applies to target housing, which is defined as any housing constructed before 1978, except housing for the elderly or persons with disabilities (unless a child under 6 years of age resides or is expected to reside in such housing) or any zero-bedroom dwelling.² PHAs are required to have lead-based paint inspections to identify the presence of lead-based paint in their public housing developments.³ If lead-based paint is identified in an inspection, a lead-based paint risk assessment is required⁴ to determine whether the lead-based paint presents a hazard.

The Authority is one of the first established and largest PHAs in the country with about 6,500 public housing units, the majority of which were constructed before 1978, the oldest having been constructed in 1937.

In a prior audit, we found that HUD generally did not monitor whether PHAs had implemented lead-based paint hazard reduction and documented the activities at their public housing developments. This creates a heightened risk that PHAs will not identify or address lead-based paint hazards in a timely manner, placing individuals and families at increased risk of exposure to the invisible dangers of lead-based paint.

Our audit objectives were to determine whether the Authority (1) complied with HUD's requirements for children with elevated blood lead levels (EBLL) and (2) adequately managed lead-based paint and lead-based paint hazards in its public housing units.

¹ 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.

² 24 CFR (Code of Federal Regulations) 35.110

³ 24 CFR 35.1115(a)

⁴ 24 CFR 35.1115(b)

What We Found

The Authority did not comply with HUD's reporting and verification requirements for cases of children with EBLLs. Specifically, it did not report all 10 confirmed cases of children with an EBLL to HUD or notify HUD that it was unable to verify 4 additional cases. Further, for 6 of 10 of the confirmed cases (60 percent), the Authority did not complete adequate environmental investigations to appropriately determine the source of each child's lead poisoning.

The Authority also did not adequately manage lead-based paint and lead-based paint hazards in its public housing. Specifically, of our sample of 24 units that the Authority managed as lead free, we determined that the Authority did not maintain sufficient documentation to support that 15 units (nearly 63 percent) and their associated developments did not contain lead-based paint. Further, for our sample of 66 units that contained lead-based paint, we determined that the Authority did not ensure that the lead-based paint inspection and risk assessment reports for 31 units (nearly 47 percent) included required information. Additionally, we reviewed a sample of 77 units, consisting of 67 units with lead-based paint and 10 units that had a child with a confirmed EBLL, and determined that the Authority did not (1) perform visual assessments for 59 units (nearly 77 percent) within the required timeframe, including 9 units that had a child under 6 years of age with a reported EBLL and (2) provide accurate lead disclosures to tenants for 38 units (nearly 50 percent), including 5 units that later had a child with a reported EBLL. Lastly, we reviewed three units for which a reevaluation was required, since the lead-based paint inspection for those units identified deteriorated paint and, thus, required hazard reduction, and determined that the Authority did not reevaluate those three units every 2 years as required.

The issues related to reporting and notifying HUD of children with EBLLs and the associated environmental investigations occurred because the Authority (1) disregarded HUD's requirement for reporting EBLL cases to HUD and (2) stated that it was not aware of certain HUD requirements for managing cases of children with EBLLs, even though HUD had published the LSHR and issued Office of Public and Indian Housing notices regarding PHAs' requirements for managing children with EBLLs. Therefore, the Authority should have been aware of and implemented those requirements. The Authority also (1) painted over deteriorated paint in the units that contained children with EBLLs before the environmental investigations were performed; thereby compromising the results and (2) believed that an environmental investigation was not needed if the household, with a child with an EBLL, no longer resided in an Authority unit. Further, the Authority lacked adequate policies, procedures, and controls to ensure that it complied with the LSHR requirements for managing housing units that contain lead-based paint. Additionally, the Authority lacked oversight of (1) the lead-based paint inspection and risk assessment reports to ensure that they contained required elements; (2) the timeliness of its visual assessments, which it combined with the performance of annual physical inspections; and (3) its property managers to ensure that accurate lead-based paint disclosures were provided to prospective tenants.

As a result of the Authority's failure to report and notify HUD of EBLLs and related environmental investigations, HUD was unable to monitor whether the Authority conducted the activities identified in the LSHR for cases of children with EBLLs. Further, because of its inadequate management of lead-based paint in its units, households that participate in the Authority's public housing program were at an increased risk of being exposed to lead-based paint hazards, particularly families with children under 6 years of age.

What We Recommend

We recommend that the Director of the Cleveland Office of Public Housing require the Authority to (1) develop and implement adequate procedures to ensure that confirmed EBLL cases, unconfirmed EBLL cases, and environmental investigations are reported to HUD; (2) develop and implement adequate procedures and controls to ensure that environmental investigations are completed when required; (3) perform a search for historical lead-based paint documentation to support the lead-free status of its units and the associated developments and if adequate documentation is not found, complete a lead-based paint inspection of the developments to determine whether they are lead free; and (4) implement adequate procedures and controls to ensure that visual assessments for lead-based paint are completed at least every 12 months, reevaluations are completed when required, and accurate lead disclosures are provided to prospective and current tenants.

We also recommend that the Director of the Cleveland Office of Public Housing work in conjunction with HUD's Office of Lead Hazard Control and Healthy Homes to (1) provide training to the Authority's staff on the appropriate testing methodology for confirming that a child has an EBLL and for managing lead-based paint, (2) provide technical assistance to the Authority in developing and implementing procedures and controls to address the issues cited in this report, and (3) assess whether the lead-based paint inspections and risk assessments with missing elements are sufficient to support the lead-based paint status of the Authority's properties.

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Background and Objectives

In the United States, there are approximately a half million children ages 1-5 with blood lead levels above the reference level at which the Centers for Disease Control and Prevention (CDC) recommends that public health actions be initiated. According to the CDC, protecting children from exposure to lead is important to lifelong good health. Lead-based paint and lead-contaminated dust are some of the most hazardous sources of lead for children in the United States, 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.

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 970,000 households residing in public housing developments that are managed by about 3,300 public housing agencies (PHA). PHAs own and operate the public housing developments⁵ in which such residents reside. The PHAs are responsible for managing and operating their housing developments in compliance with all applicable HUD and other Federal regulations.

Lead-Based Paint Laws and Regulations

The Residential Lead-Based Paint Hazard Reduction Act of 1992 established the national goal to eliminate lead-based paint hazards in housing as quickly as possible and required HUD to establish or update procedures to eliminate, as far as practicable, the hazards of lead-based paint. Section 1018 of the Act, also known as the Lead Disclosure Rule, directed HUD and the Environmental Protection Agency (EPA) to require the disclosure of known information on lead-based paint and lead-based paint hazards before the sale or lease of most housing built before 1978.⁶ In 1999, HUD published the Lead Safe Housing Rule (LSHR)⁷ to implement the requirements of the Lead-Based Paint Poisoning Prevention Act, as amended,

⁵ 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 consist of several buildings or properties containing multiple units. These buildings or properties may be in different physical locations.

⁶ Under the Lead Disclosure Rule, PHAs must provide to prospective tenants any known information concerning lead-based paint and lead-based paint hazards, including any supporting records or reports. Additionally, an EPA-approved information pamphlet on identifying and controlling lead-based paint hazards must be provided.

⁷ Lead Disclosure Rule at 24 CFR (Code of Federal Regulations) part 35, subpart A, and LSHR at 24 CFR part 35, subparts B through R, as cited in appendix C.

and the Lead-Based Paint Hazard Reduction Act of 1992 to eliminate lead-based paint hazards, as far as practicable, in certain HUD-assisted properties.

The LSHR established specific actions or procedures that PHAs are required to perform in relation to hazard reduction for lead-based paint and lead-based paint hazards. The LSHR applies to “target housing,” which is defined as any housing constructed before 1978, except housing for the elderly or persons with disabilities (unless a child under 6 years of age resides or is expected to reside in such housing) or any zero-bedroom dwelling. PHAs are required to have lead-based paint inspections to identify the presence of lead-based paint in their public housing developments. If lead-based paint is identified, a lead-based paint risk assessment is required to determine whether the lead-based paint presents a hazard.

PHAs are required to abate lead-based paint hazards or enact interim controls and ongoing maintenance within 90 days for units with a child under 6 years of age or 1 year for other units.⁸ 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. Public housing units with lead-based paint are required to have visual assessments conducted to identify deteriorated lead-based paint every 12 months and when the unit turns over, meaning that it has been vacated and a new tenant has moved in.⁹

The LSHR also established requirements for instances of a child under 6 years of age with an elevated blood lead level (EBLL).¹⁰ These requirements¹¹ include (1) reporting confirmed EBLL cases to the local HUD public housing field office and the HUD Office of Lead Hazard Control and Healthy Homes within 5 business days of being notified by a public health department or medical health care provider, (2) completing an environmental investigation¹² of the unit within 15 calendar days of notification to identify the source of lead exposure and lead-based paint hazards, and (3) addressing any lead-based paint hazards identified in the unit by the environmental investigation within 30 calendar days after receiving the environmental investigation report or relocating the household.

The figure below summarizes some of the lead-based paint requirements from the LSHR that are relevant to this report.

⁸ 24 CFR 35.1120(a) and 24 CFR 35.1120(b)

⁹ 24 CFR 35.1355(a)(2)

¹⁰ HUD defines EBLL as a child under 6 years of age with blood lead levels equal to or greater than 5 micrograms per deciliter of blood.

¹¹ 24 CFR 35.1130

¹² An environmental investigation is the process of determining the source of lead exposure for a child under age 6 with an EBLL. The environmental investigation is required within 15 calendar days after notification by a public health department or other medical health care provider that a child of less than 6 years of age living in a dwelling unit has been identified as having an EBLL.

Figure 1. Illustration of HUD’s lead-based paint requirements for public housing.

HUD’s lead-based paint requirements for public housing

Target housing	Units with lead-based paint
<ul style="list-style-type: none"> • Lead-based paint inspection to identify the presence of lead-based paint. • If lead-based paint is identified, complete a lead-based paint risk assessment to determine whether the lead-based paint presents a hazard. 	<ul style="list-style-type: none"> • Visual assessment every 12 months and at unit turnover • Reevaluations required unless no lead-based paint hazards identified • Hazard identified reevaluations every 2 years until two consecutive without a hazard
Units with confirmed EBLL and children under 6 years of age	Units without lead-based paint
<ul style="list-style-type: none"> • Report EBLL to HUD within 5 business days of confirmation • Environmental investigation within 15 calendar days of notification 	<ul style="list-style-type: none"> • All lead-based paint identified, abated, and clearance achieved • Lead-based paint inspection showing no lead-based paint

According to HUD’s Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, units that have had a lead-based paint inspection that did not identify the presence of lead-based paint are identified as “lead free,” and further action is not required. Units that have had a lead-based paint inspection that identified lead-based paint that does not present a hazard and is currently being treated with interim controls and ongoing maintenance are identified as “lead safe.”

Prior HUD OIG Audit Work on Lead-Based Paint in Public Housing

In October 2022, the Office of Inspector General (OIG) issued an audit report regarding HUD’s oversight of lead-based paint hazard remediation in public housing.¹³ The audit identified that HUD did not have a plan to manage lead-based paint and lead-based paint hazards in public housing. In addition, HUD generally did not monitor whether PHAs had implemented lead-based paint hazard reduction and documented the activities at their public housing developments. These weaknesses occurred because HUD relied on PHAs to implement their own methods to achieve lead-safe housing, which should have included implementing lead-based paint hazard reduction. Further, instead of monitoring PHAs for compliance with the lead-based paint hazard reduction procedures in the LSHR, HUD relied on PHAs’ annual certifications of compliance. HUD closed the recommendation in September 2023 by implementing guidance that defined the roles and responsibilities of HUD headquarters and field office

¹³ HUD Lacked Adequate Oversight of Lead-Based Paint Hazard Remediation in Public Housing, 2023-CH-0001, October 11, 2022

staff, provided examples of PHA noncompliance with the LSHR, and established a protocol for addressing PHA noncompliance and corresponding follow up procedures. We have not assessed the effectiveness of HUD's actions to close the recommendation, which would cover HUD's oversight of lead-based paint of PHAs after the scope of this audit.

Cuyahoga Metropolitan Housing Authority

The Cuyahoga Metropolitan Housing Authority was founded in 1933 as the first chartered PHA in the country. The Authority is one of the 10 largest PHAs in the Nation and operates a public housing program consisting of approximately 6,500 units in approximately 22 developments. It has more than 4,100 housing units in 10 developments, which are considered "target housing" as described by the LSHR. The Authority maintained an internal unit status log to track lead-based paint in its public housing units that are target housing. The log included the status of more than 3,600 units, from which we identified two testing universes, consisting of more than 2,200 units that contained lead-based paint (lead safe) and more than 1,400 lead-free units, for potential review.¹⁴

The audit objectives were to determine whether the Authority (1) complied with HUD's requirements for children with EBLs and (2) adequately managed lead-based paint and lead-based paint hazards in its public housing units.

To assess PHAs' management of lead-based paint and lead hazards in public housing units, we focused on the following six areas:

1. reporting and management of potential EBL cases;
2. lead-free determinations;
3. lead inspection and risk assessment reports;
4. abatement or interim controls, which includes visual assessments and hazard reduction;
5. risk assessments and reevaluations; and
6. lead disclosures.

¹⁴ See the Scope and Methodology section of this report for more information about how we determined the universe of units for review.

Results of Audit

Overall Assessment of the Authority’s Management of Lead-Based Paint

We assessed the Authority’s management of lead-based paint in the following six review areas and identified issues in all areas as noted in the table below.

Review areas	Instances of noncompliance identified?	Details of assessment
Reporting and management of potential EBLL cases	Yes	The Authority did not comply with HUD’s EBLL requirements. Specifically, it did not report all 10 confirmed EBLL cases to HUD or notify HUD that it was unable to verify 4 additional cases. Further, for 6 of the 10 confirmed EBLL cases, the Authority did not complete an adequate environmental investigation.
Lead-free determinations	Yes	The Authority managed 15 of the 24 units sampled as lead free without sufficient documentation to support that the units did not contain lead-based paint.
Lead inspection and risk assessment reports	Yes	The Authority did not ensure that the lead-based paint inspection and risk assessment reports for 31 of the 66 units sampled included required information.
Abatement or interim controls, which include visual assessments and hazard reduction	Yes	The Authority did not perform visual assessments within the required timeframe for 59 of the 77 units sampled.
Risk assessments and reevaluations	Yes	The Authority did not complete reevaluations for the three units for which they were required.
Lead disclosures	Yes	The Authority did not provide accurate lead disclosures for 38 of the 77 units sampled.

Additional details of the issues identified in each of the six review areas are discussed in the following sections.

The Authority Did Not Comply With HUD’s EBLL Requirements

The Authority did not comply with HUD’s reporting and verification requirements for cases of children with EBLs. The Authority received notification¹⁵ of 14 cases of children under 6 years of age with potential EBLs. Of the 14 cases, 10 were confirmed, and the Authority was unable to verify the status of the remaining 4. However, it did not report all 10 confirmed cases to HUD or notify HUD that it was unable to verify the remaining 4. Further, for 6 of 10 of the confirmed cases, the Authority did not consistently complete adequate environmental investigations for 5 cases and failed to perform an investigation for 1 case.

These issues occurred because the Authority’s management (1) disregarded HUD’s requirement of reporting to HUD confirmed cases of children with EBLs and (2) stated that it was not aware of certain HUD requirements for managing cases of children with EBLs, even though HUD had published the LSHR and issued Office of Public and Indian Housing (PIH) notices regarding PHAs’ requirements for managing cases of children with EBLs. Therefore, the Authority should have been aware of and implemented those requirements. Further, the Authority (1) painted over deteriorated paint in the units that contained children with EBLs before the environmental investigations were performed, thereby compromising the results and (2) believed that an environmental investigation was not needed if the household with a child with an EBL no longer resided in an Authority unit. As a result, HUD was unable to monitor whether the Authority conducted the activities identified in the LSHR for cases of children with EBLs. Further, without performing adequate environmental investigations, the Authority was unable to appropriately determine whether the units were the source of the children’s lead poisoning to conduct interim or abatement activities to mitigate any lead hazards.

The Authority Did Not Report Cases of Children With EBLs to HUD

Of the 14 total EBL cases reported to the Authority during our audit period, the Authority had 10¹⁶ confirmed¹⁷ EBL cases associated with 5 different properties.¹⁸ It did not report the confirmed cases to HUD for inclusion in HUD’s EBL tracker database, which is used to track cases of children with EBLs in public housing nationwide. It also did not notify HUD of the results of the environmental investigations¹⁹ associated with the confirmed cases as required by the LSHR.²⁰

Further, for 1 of the 10 confirmed EBL cases, the Authority improperly determined that a child had an EBL based on an email from the local public health department, dated October 4, 2020, in which the

¹⁵ From the public health department, medical provider, or the Authority’s tenants

¹⁶ We later determined that 1 of the 10 cases was not appropriately confirmed because it was based on a single capillary test.

¹⁷ According to HUD’s requirements at 24 CFR 35.1130(b) and Notice PIH 2017-13, section 2, a confirmed EBL case is defined as a child under 6 years of age with blood lead levels equal to or greater than 5 micrograms per deciliter of blood that has been reported or verified by a medical health care provider or public health department. See appendix B for HUD’s requirements for children with EBLs.

¹⁸ The 10 confirmed cases consisted of 9 cases that the Authority considered confirmed and an additional case that it did not confirm but should have because it was reported to the Authority by the local public health department.

¹⁹ Regulations at 24 CFR 35.110 define environmental investigation as the process for determining the source of lead exposure for a child under 6 years of age with an EBL.

²⁰ 24 CFR 35.1130(e)(2-3) and Notice PIH 2017-13, section 5

public health department informed the Authority that the child had an EBLL as determined by a single capillary test. However, HUD requires at least two capillary (finger prick) tests or a venous blood draw to confirm an EBLL.²¹ The Authority did not follow up with the public health department or a medical care provider to appropriately confirm the child's EBLL.

For the remaining four cases, the Authority's tenants reported children with potential EBLLs to the Authority. However, the Authority was unable to verify the children's EBLLs. According to the Authority, it had attempted to verify the cases with the local public health department but did not receive a response. However, the Authority did not notify HUD that it could not verify the children's EBLLs as required.²²

The Authority's chief executive officer told us that he was aware of the general requirements of the LSHR and delegated the understanding of the regulation's specific requirements to his staff. However, according to the Authority's management officials, to whom the chief executive officer delegated responsibility for understanding the LSHR's requirements, they were generally aware of LSHR's reporting requirement for EBLLs; however, they did not report cases to HUD due to uncertainty regarding who in HUD should receive the information and how to report it. Therefore, instead of the Authority contacting HUD for clarification, the Authority disregarded the requirement. Further, according to the Authority's management, it was not aware of the LSHR's requirements to (1) report the results of the environmental investigations for the associated units and (2) notify HUD of EBLL cases that it could not verify. Further, according to the Authority's management officials, they were also not aware of the venous blood draw requirement of the LSHR to adequately confirm a case of an EBLL in a child. The Authority's management also expressed that it had no control over the medical procedures that a family may receive with respect to the reported EBLL case. Although the Authority stated that it was unaware of HUD's reporting and verification requirements and the appropriate method for determining whether a child had an EBLL, the Authority should have been aware of those requirements because its chief executive officer delegated responsibility for understanding specific requirements of the LSHR to his staff, and from 2019 through 2023, the Authority certified to HUD that it would comply with all requirements of the LSHR.

Due to the Authority's not reporting cases of children with confirmed EBLLs to HUD, HUD could not perform its oversight responsibilities of determining whether the PHA (1) performed an environmental investigation to determine the source of lead exposure in a timely manner, (2) verified the EBLL case with the public health department or other medical healthcare provider, (3) completed the reduction of the identified lead-based paint hazard, and (4) notified other residents of lead-based paint hazard evaluation or reduction activities as appropriate. Had the Authority reported its cases of children confirmed with EBLLs to HUD, HUD would have used its EBLL tracker database to collect information and monitor whether the Authority performed the required actions noted above. Further, because the Authority did not report unconfirmed cases of EBLLs, HUD was unable to attempt to verify the children's EBLLs with the public health department or medical provider. Therefore, the sources of potential lead exposure for the affected children were not determined. Further, because of the improper testing used, the Authority was unable to fully confirm that a child had an EBLL and the need for an environmental investigation.

²¹ Notice PIH 2017-13 states that a confirmed concentration is one that is measured by a venous (from a vein) blood draw, or two capillary blood specimens drawn within 12 weeks of each other, both with elevated lead concentration.

²² 24 CFR 35.1130(b) and Notice PIH 2017-13, section 6

Before our audit, HUD's Cleveland Office of Public Housing was not aware that the Authority was not reporting EBLs to HUD as required. Additionally, the Authority did not contact the Office to obtain clarification regarding HUD's requirements²³ until after our audit began. After we identified the issues above and reported them to the Authority, the Authority's management began reporting cases of children with EBLs to HUD in January 2023. HUD has confirmed the reporting. In addition, the Authority stated that going forward, it would notify HUD of all unconfirmed cases as well and report the results of environmental investigations to HUD as required.

The Authority Did Not Ensure That Environmental Investigations Accurately Determined the Source of Children's Lead Exposure and Were Always Completed

The LSHR requires PHAs to conduct environmental investigations to determine the source of children's lead exposure. For 6 of the Authority's 10 confirmed EBL cases (60 percent), the Authority did not consistently complete an adequate environmental investigation.²⁴ Specifically, for 5 of the 10 confirmed EBL cases (50 percent) reviewed, the Authority painted the associated units before an environmental investigation was performed. Therefore, any deteriorated paint in the units was intact by the time the required environmental investigations were completed. For the units associated with the remaining five EBL cases, environmental investigations were appropriately completed for four, and an environmental investigation was not completed for one. HUD requires environmental investigations for all confirmed EBL cases within 15 calendar days of being notified by a public health department or medical care provider.²⁵

The Authority stated that it was generally its practice to paint units before an environmental investigation because it wanted to address deteriorated paint in units that had a child with a confirmed EBL at the earliest opportunity. However, because the Authority painted the units, the environmental investigations were compromised and could not be relied on to accurately determine the source of lead exposure for children under the age of 6.²⁶ However, as a result of our audit, the Authority stated that it had adjusted its process by not implementing interim controls and was no longer painting units with peeling paint before completing an environmental investigation.

According to the Authority, it did not perform an environmental investigation for a reported EBL case for which it had received information from the local public health department. According to the Authority, the public health department attempted to complete the environmental investigation but could not access the unit after the affected family permanently vacated it. Despite the Authority having access to the unit, it did not complete an environmental investigation as required²⁷ and did not determine whether

²³ LSHR and Notice PIH 2017-13

²⁴ An environmental investigation can be performed by the Authority or health department in accordance with 24 CFR 35.1130(a) and Notice PIH 2017-13, section 6.

²⁵ 24 CFR 35.1130(a)

²⁶ Regulations at 24 CFR 35.110 define an environmental investigation as the process for determining the source of lead exposure for a child under age 6 with an EBL.

²⁷ Regulations at 24 CFR 35.1130(a) provide that an environmental investigation is required, regardless of whether the child with the confirmed EBL is still living in the unit.

the unit was the source of the affected child's lead poisoning. Thus, this unit could pose a threat to future tenants, which could include children.

When we discussed the lack of an environmental investigation of the unit with the Authority, the Authority stated that it believed an environmental investigation was not required because the unit was vacant. However, based on our audit, the Authority's management stated that environmental investigations would be completed going forward, regardless of whether a tenant had vacated a unit.

Conclusion

Although the Authority's chief executive officer delegated responsibility for understanding specific requirements of the LSHR to his staff and from 2019 through 2023, the Authority certified to HUD that it would comply with all requirements of the LSHR, we found that the Authority did not comply with HUD's reporting and verification requirements outlined in the LSHR for cases of children with reported EBLLs. Additionally, it did not have written procedures to ensure compliance with the LSHR. Further, the Authority painted over deteriorated paint in the units that contained children with EBLLs before the environmental investigations were performed and believed that an environmental investigation was not needed if the household with a child with an EBLL no longer resided in an Authority unit. As a result, HUD was unable to monitor whether the Authority conducted the activities identified in the LSHR for cases of children with EBLLs. Further, without performing adequate environmental investigations, the Authority was unable to appropriately determine whether the units were the source of the children's lead poisoning to conduct interim controls or abatement activities to mitigate any lead hazards.

Recommendations

We recommend that the Director of the Cleveland Office of Public Housing require the Authority to

- 1A. Develop and implement adequate procedures to ensure that confirmed EBLL cases, unconfirmed EBLL cases, and environmental investigations are reported to HUD.
- 1B. Develop and implement adequate procedures and controls to ensure that environmental investigations are completed when required.

We also recommend that the Director of the Cleveland Office of Public Housing

- 1C. Work with HUD's Office of Lead Hazard Control and Healthy Homes to provide training for the Authority's staff on the appropriate testing methodology for confirming that a child has an EBLL and to provide technical assistance on procedures and controls to address the issues cited in this finding.

The Authority Did Not Adequately Manage Lead-Based Paint and Lead-Based Paint Hazards in Its Housing Units

The Authority did not adequately manage lead-based paint and lead-based paint hazards in its public housing. Specifically, of the sampled units reviewed, the Authority did not (1) maintain sufficient documentation to support that nearly 63 percent of the lead-free units and their associated developments did not contain lead-based paint; (2) ensure that the lead-based inspection and risk assessment reports for nearly 47 percent of the units included required information; (3) perform visual assessments for nearly 77 percent of the units within the required timeframe; (4) reevaluate three units every 2 years, since the lead-based paint inspection for those units identified deteriorated paint and, thus, required hazard reduction; and (5) provide accurate lead disclosures to tenants for more than 49 percent of the units.

These failures occurred because the Authority lacked adequate policies, procedures, and controls to ensure that it appropriately managed its housing units that contained lead-based paint. Further, the Authority lacked oversight of (1) the lead-based paint inspection and risk assessment reports to ensure that they contained required elements; (2) the timeliness of its visual assessments, which it combined with the performance of annual physical inspections; and (3) its property managers to ensure that accurate lead-based paint disclosures were provided to prospective tenants. As a result, households that participated in the Authority's public housing program were at increased risk of being exposed to lead-based paint hazards, particularly families with children under 6 years of age.

The Authority Categorized Some of Its Units as Lead Free Without Adequate Support

We reviewed a sample of 24 units²⁸ of the 1,409 that the Authority categorized as lead free. Of the 24 units, the Authority lacked sufficient support that 15 units (nearly 63 percent) and their associated developments did not contain lead. For public housing to be considered lead free and exempt from LSHR requirements, HUD requires that all lead-based paint be identified and removed and that clearance be achieved²⁹ or that a lead-based paint inspection report shows that the property does not have lead-based paint.³⁰ The Authority explained that the 15 sample units underwent modernization and complete lead abatement in the 1990s and that these units no longer had lead. However, it did not have adequate documentation to support that the units were lead free, and according to the Authority, it had operated under the assumption that the 15 units and the associated developments were lead free since the 1990s. The Authority lacked adequate procedures to ensure that it maintained documentation to support its abatement activities. Without adequate documentation that the units are lead free, the Authority's tenants are at risk of residing in units that may contain lead-based paint.

²⁸ We selected a sample of 25 units. However, we later determined that the Authority incorrectly categorized one unit as lead free but managed the unit for lead-based paint. Therefore, we reviewed 24 units that were categorized and managed by the Authority as lead free. See the Scope and Methodology section of this report.

²⁹ 24 CFR 35.115(a)(5)

³⁰ 24 CFR 35.115(a)(4)

The Authority Did Not Ensure That Its Lead-Based Paint Inspection and Risk Assessment Reports Met HUD's Requirements

The Authority did not ensure that its lead-based paint inspection and risk assessment reports met HUD's and EPA's requirements.³¹ We reviewed the lead-based paint inspection and risk assessment reports for the 66 units in the lead-based paint sample and identified issues with 31 (nearly 47 percent) of the units' reports. Specifically, the reports for the 31 units³² were missing 1 or more of the following required elements:

- name, signature, or certification of the individual who completed the inspection or risk assessment for 31 units;
- the serial number of the X-ray fluorescence analyzer (XRF)³³ testing device used for 22 units;
- all data collected from onsite testing, including the visual assessments of paint collection and XRF testing results for 13 units;
- results of laboratory analysis for lead in collected dust or soil samples for 31 units; and
- building construction dates for 22 units.

Based on the results of our review of the 66 statistically sampled units and projecting those results to the Authority's units with lead-based paint, we estimate that the reports for at least 1,004 units with lead-based paint had at least 1 deficiency.³⁴

The Authority lacked adequate procedures and controls to ensure that the lead-based paint and risk assessment reports contained the required elements. The Authority's management acknowledged that the lead-based paint inspections and risk assessment reports did not contain all of HUD's and EPA's required elements. However, the Authority said that most of those reports were dated before the early 2000s and were substantively complete. Further, the Authority stated that starting in approximately 2015, the Authority hired third-party contractors to perform the inspections, risk assessments, and associated reports to ensure that the required technical elements were included. While we acknowledge that the Authority's reports for the units in our sample that had been completed after 2015 were generally compliant, the older reports for which we cited issues were the most recent available for the sample units tested.³⁵ The Authority had been relying on the accuracy of the lead-based determinations in those reports, despite missing significant required elements, such as the results of XRF testing and lead dust testing. As a result, HUD and the Authority lacked assurance that the inspection and risk assessment reports completed before the Authority used third-party contractors were sufficient.

The Authority Did Not Consistently Perform Visual Assessments in a Timely Manner

³¹ 24 CFR 35.1320(a), 40 CFR 745.227(b)(4), 24 CFR 35.1320(b)(1), and 40 CFR 745.227(d)(11)

³² See appendix B for a summary of deficiencies identified in the lead-based paint and risk assessment reports for the 31 units.

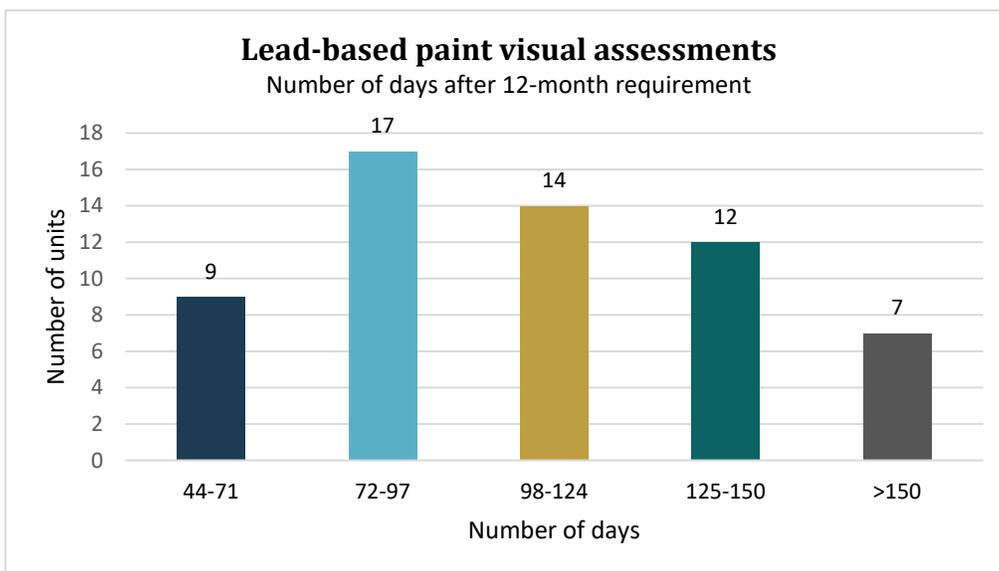
³³ An XRF device is a tool for determining whether lead is present in paint and measuring the concentration of lead present. Recording the XRF device serial number is part of EPA's requirement to document methodologies and ensure adequate quality control measures. See 40 CFR 745.227(b)(4)(viii) and 40 CFR 745.227(d)(11)(xii).

³⁴ See the Scope and Methodology section of this report for additional details.

³⁵ HUD's requirements do not address the need for new inspections based on the date of the original lead-based paint inspection and risk assessment report.

The Authority did not always ensure that it performed visual assessments for units that contained lead-based paint within the required 12-month timeframe.³⁶ Of the 2,252 units categorized by the Authority as having lead-based paint, we statistically selected a sample of 66 units. We also reviewed the visual assessments for 10 additional units with lead-based paint that had a child with a reported EBLL³⁷ and 1 unit incorrectly categorized as lead free that had lead-based paint. Therefore, of the 77 units reviewed, the Authority did not perform visual assessments for 59 (nearly 77 percent) in a timely manner.³⁸ For these 59 units, the number of days during which the visual assessments were completed ranged from 44 to 386 days after the 12-month requirement. See figure 2 below.

Figure 2. Number of days after the 12-month requirement that the Authority took to perform the visual assessments for the 59 units.



Based on the results of our statistical sample of 66 of the Authority’s 2,252 units categorized by the Authority as having lead-based paint³⁹ and projecting those results to the universe, we estimate that at least 1,572 of those units (nearly 70 percent) did not have lead-based paint visual assessments performed in the required timeframe. Therefore, those units were not visually assessed in a timely manner. As a result of the Authority’s late visual assessments, deteriorated painted surfaces may have gone undetected for longer periods. Therefore, households that participated in the Authority’s program were at an increased risk of being exposed to lead-based paint hazards, particularly families with children under 6 years of age.

³⁶ Regulations at 24 CFR 35.1355(a)(2) require visual assessments for deteriorated paint, bare soil, and the failure of any hazard reduction measures at unit turnover and at least once every 12 months.

³⁷ Of the 14 EBLL cases reported to the Authority, 4 cases were associated with units that were lead free and, thus, do not require visual assessments. For the remaining 10 cases, associated with 10 units that had lead-based paint, the Authority did not perform visual assessments for 9 units in a timely manner.

³⁸ The 59 late visual assessments consisted of 49 of the 66 units from the statistical lead-based paint sample, 9 of the 10 units from the reported EBLL cases, and the 1 unit that was incorrectly categorized as lead free but had lead-based paint.

³⁹ Of the 66 statistically selected units, 49 did not have one or more timely visual assessments. See the Scope and Methodology section of this audit report.

According to the Authority's management, the Authority combined the timing of the lead-based paint visual assessments with the annual physical inspections of its public housing units. Visual assessments must be performed every 12 months, and physical inspections must be performed annually.⁴⁰ The Authority's management stated that its process for visual assessments was predicated on annual inspections of units being completed every 12 months, which meant that the Authority would fulfill multiple requirements.⁴¹ However, according to the Authority, it did not consistently monitor the visual assessments to ensure that the amount of time between the assessments did not exceed 12 months. Further, the Authority's policies and procedures did not address the requirement for visual assessments. In reviewing the Authority's records for its annual inspections, we confirmed that the Authority completed annual and visual assessments at the same time; however, this practice resulted in untimely visual assessments for nearly 77 percent of the units reviewed.

The Authority's management stated that the Authority did not have documentation to support why specific units did not have timely visual assessments. Further, its policies and procedures did not require such documentation to be maintained. The Authority provided examples of some of the common reasons for late visual assessments, such as tenants'

- changing locks without notifying the Authority,
- having vicious dogs that prevented access to their units,
- not cooperating with admitting the inspector pre- and post-pandemic, and
- having bed bugs in their units that had not been cleared.

Further, the Authority stated that its annual inspections, including lead-based paint visual assessments, were suspended by the Authority during the coronavirus disease 2019 (COVID-19) pandemic. The Authority's decision to stop performing inspections during the pandemic also resulted in visual assessments' being late. In July 2020, HUD issued a waiver⁴² temporarily pausing the requirement for physical condition inspections due to the pandemic. However, HUD had not issued a waiver pausing the requirement that PHAs perform lead-based paint visual assessments during the pandemic. Therefore, the Authority should not have stopped performing visual assessments during the pandemic.

The issues identified above occurred because the Authority lacked adequate policies, procedures, and controls to ensure that (1) the amount of time between inspections not exceeding 12 months was consistently met, (2) the visual assessments were completed independently of the physical inspections when needed, and (3) documentation of the reasons why visual assessments were not performed in a timely manner was appropriately maintained.

According to the Authority, it will monitor units that missed an annual inspection to ensure that each unit is inspected⁴³ in a follow-up cycle within the 1-year period. Further, a specific task will be added to the Authority's work order system requiring maintenance staff to visually assess the condition of paint in units each time a work order is assigned and to document defective or deteriorating paint for follow-on

⁴⁰ 42 U.S.C. (United States Code) 1437d(f)(3)

⁴¹ HUD's requirements for annual inspections and visual assessments

⁴² Notice PIH 2020-13

⁴³ Annual inspection and visual assessment

activities. Lastly, the Authority intends to paint every unit periodically or more frequently based upon unit turnover, modernization or conversion activities, or necessary repairs.

Although the Authority Completed Risk Assessments, It Did Not Consistently Complete Reevaluations as Required

We reviewed a sample of 66 of the 2,253 units that the Authority managed for lead-based paint. Of the 66⁴⁴ units, there were only 3 units with a risk assessment that identified lead-based paint hazards for which a reevaluation was required. However, the Authority did not complete reevaluations for the three units every 2 years as required. Reevaluations are a type of lead-based paint testing that must be performed by a certified risk assessor to identify deteriorated lead-based paint surfaces, failed interim controls, lead dust hazards, and lead soil hazards.⁴⁵ A risk assessment report completed in May 2016 identified several instances of deteriorated lead-based paint at the development where the three units were located.

According to the Authority's management, the suspension of physical inspections during COVID-19 affected the Authority's ability to perform reevaluations every 2 years after lead-based paint inspections had identified lead-based paint hazards. However, as previously mentioned, the risk assessment report for the three units was dated May 2016, which was before the pandemic. The Authority could not explain or provide documentation showing why the three units did not have reevaluations in 2018, 2020, and additional years as appropriate.

The Authority did not have adequate policies and procedures on how to properly perform reevaluations on a timely basis. Specifically, the Authority's written policies and procedures in place during our scope period did not address reevaluations of lead-based paint hazard reduction or refer to the LSHR. As a result, HUD and the Authority lacked assurance that the Authority consistently performed reevaluations of its lead-paint hazard reduction activities.

The Authority Did Not Always Disclose Lead-Based Paint and Provide Complete Lead Disclosures to Tenants as Required

For 38 of the 77⁴⁶ units reviewed (more than 49 percent), the Authority failed to adequately disclose its knowledge of lead-based paint or lead-based paint hazards in the units and the associated lead-based paint records to prospective tenants as required.⁴⁷ Specifically, for 31 of the 38 units, the Authority did not

- disclose the presence of known lead-based paint or that records were available to the tenants for review, despite risk assessments that identified lead-based paint before the date of the disclosures for 23 units, 2 of which were associated with a child with a reported EBLL or

⁴⁴ Of the 66 units, 63 did not have lead-based paint hazards, which would have required reevaluations.

⁴⁵ 24 CFR 35.1355(b)

⁴⁶ 66 statistically selected units that had lead-based paint, 1 unit that the Authority had incorrectly categorized as lead free, and 10 units with lead-based paint that had a child with a reported EBLL

⁴⁷ 24 CFR 35.88

- provide evidence that a lead-based paint disclosure had been provided to the tenants before leasing 8 units, 3 of which were associated with a child with a reported EBLL.

For the remaining seven units, the Authority (1) provided lead disclosures that identified lead-based paint on surfaces in the unit that were not supported by documentation, such as a risk assessment or lead inspection report, for three units and (2) did not complete the required section of the lead disclosures used to record the provision of the required EPA lead hazard pamphlet to the tenants for four units.

Based on the results of our statistical sample of 66 of the Authority's units with lead-based paint and projecting those results to the universe, we estimated that the Authority made at least 946 improper lead disclosures to the tenants residing in the Authority's units.⁴⁸

According to the Authority's management, the issues with the improper lead disclosures were due to human error. However, the inadequate lead disclosures represented more than 49 percent of the disclosures reviewed and were completed by several of the Authority's employees at seven different properties. The Authority had procedures in place to address lead disclosures but lacked adequate oversight of its property managers to ensure that those procedures were consistently followed, and accurate disclosures were provided to prospective tenants in the Authority's units.

The Authority's management acknowledged the issues and said that it was working to put a control in place with a new information system, which included lead disclosures that were automatically populated with the correct information and automatically included with all new leasing documentation.

Conclusion

The Authority lacked sufficient policies, procedures, and controls to ensure that it adequately managed lead-based paint in its units. It also lacked oversight of (1) the lead-based paint inspection and risk assessment reports to ensure that they contained required elements, (2) the timing of its visual assessments, and (3) its property managers to ensure that accurate lead-based paint disclosures were provided to prospective tenants. Therefore, the Authority needs to improve its management of lead-based paint and lead-based paint hazards in its housing units to better protect households from the risks associated with lead-based paint. If the Authority does not improve, families, including those with children under 6 years of age, risk being exposed to lead-based paint hazards.

Recommendations

We recommend that the Director of the Cleveland Office of Public Housing require the Authority to

- 2A. Perform a search for historical documentation to support the lead-free status of the 15 units and the associated developments. If adequate documentation is not found to support that all lead-based paint was identified and abated and clearance was achieved as required, the Authority should complete a lead-based paint inspection of the developments to determine whether they are lead free.
- 2B. Develop a quality control process to ensure that records for the remaining 1,385 units⁴⁹ contain evidence of lead-free status. If adequate documentation is not found to support that all lead-based paint was identified and abated and clearance was achieved as required, the Authority should

⁴⁸ See the Scope and Methodology section for additional details.

⁴⁹ 1,409 lead free units less the 24 units reviewed

complete a lead-based paint inspection of the developments to determine whether they are lead free.

- 2C. Implement procedures that align with HUD's requirements and controls to ensure that visual assessments for lead-based paint are completed at least every 12 months.
- 2D. Implement policies and procedures that align with HUD's requirements and controls to ensure that reevaluations are completed when required.
- 2E. Implement controls to ensure that accurate lead disclosures are provided to prospective and current tenants.

We also recommend that the Director of the Cleveland Office of Public Housing

- 2F. Work with HUD's Office of Lead Hazard Control and Healthy Homes to provide training for the Authority's staff on the management of lead-based paint, including technical assistance with developing and implementing procedures and controls to address the issues cited in this finding.
- 2G. Work with HUD's Office of Lead Hazard Control and Healthy Homes to assess whether the lead-based paint inspections and risk assessments with missing elements are sufficient to support the lead-based paint status of the Authority's properties. If it is determined that the lead-based paint and risk assessment reports are not sufficient, HUD should require the Authority to perform new assessments.

Scope and Methodology

We performed our work between January and November 2023 at the Authority's office located at 8120 Kinsman Road, Cleveland, OH, and our offices in Chicago, IL, Columbus, OH, and Detroit, MI. Our review generally covered the period January 1, 2020, through December 31, 2022, but we expanded this period as necessary.⁵⁰

To accomplish our audit objectives, we had discussions with the Authority's and HUD's management officials and staff. In addition, we reviewed

- 42 U.S.C. (United States Code) 63, 63(a), and 1437d; the Lead Disclosure Rule and LSHR at 24 CFR part 35;⁵¹ EPA requirements at 40 CFR part 745; HUD's Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing; HUD's PIH notices; information from HUD's EBLL tracker; and information maintained in HUD's Inventory Management System-PIH Information Center.
- The Authority's policies and procedures for managing lead-based paint, unit status log, service work orders, lead-based paint inspection and risk assessment reports, lead-based paint maintenance and remediation records, lead-based paint clearance reports, lead-based paint disclosures, unit inspection reports, and records related to EBLL cases.

The Authority maintained a unit status log in the form of an internal Excel database to track lead-based paint in its target public housing units. After completing data reliability testing on the log,⁵² the log included the status for 11 developments and included a total of 3,661 units. The log identified units in two categories by lead status: (1) "lead free" with a universe of 1,409 units and (2) units with lead-based paint with a universe of 2,252 units. We determined that the data in the Authority's unit status log were reasonably reliable to use as a source for sampling purposes.

The Authority identified 1,409 units as being lead free. We selected a nonstatistical sample of 25 units to assess whether these units were appropriately categorized and managed. Since our sample was nonstatistically selected, we did not project the results to the universe of lead-free units.

The Authority identified 2,252 units with lead-based paint. Of the 2,252 units, we statistically selected a sample of 66 to assess whether these units were appropriately categorized and managed. Using our sample of units, we projected to the universe of 2,252 units with lead-based paint.

During our audit period, the Authority had 14 reported cases of children under 6 years of age with EBLLs associated with 14 of the Authority's units. We reviewed all 14 cases and the associated units to determine whether the Authority properly handled these cases and managed the associated units in accordance with the LSHR. Since we reviewed 100 percent of the cases, projection to the universe was not applicable.

⁵⁰ We expanded our scope for the visual assessment review to January 1, 2018, to consider the impacts of the pandemic. We also expanded our scope to capture the most recent lead-based inspection and risk assessments.

⁵¹ See appendix C for details regarding Federal lead-based paint requirements.

⁵² We completed various tests to remove (1) duplicate units, (2) invalid unit numbers with too few or too many digits, (3) units that were converted to the Rental Assistance Demonstration program, (4) units that were part of properties designated as elderly only, and (5) units in properties built after 1978.

Methodology for Projections

We employed a stratified random sample of 66 for review among the universe of the Authority's 2,252 units with lead-based paint. We used the developments each unit was associated with to design the seven strata. We detail the sample counts per strata and sampling weights in the sample table below.

Sample design table				
Stratum (development ID)	Total count in stratum	Sample count	Probability of selection	Sampling weight
901	308	9	0.13636	34.22
902	336	10	0.15152	33.60
905	273	8	0.12121	34.13
907	446	13	0.19697	34.31
908	381	11	0.16667	34.64
909	243	7	0.10606	34.71
910	265	8	0.12121	33.13
Total	2,252	66		

We computed the percentage and number of counts of Authority units with lead-based paint reviewed with material deficiencies based on the sampling results, and we extended this result to the population using the surveyfreq⁵³ procedure provided by SAS[®].⁵⁴ We estimated the lower confidence interval using a Gaussian⁵⁵ sampling distribution, which is appropriate for error rates in this range. We extended these percentages to the 2,252 records in the universe to get the total universe count of units with lead-based paint with a deficiency.

The basic estimation calculations are as follows:

$$Percent_{LCL} = pct - t_{\alpha/2} SE_{\%}$$

$$Universe\ Count_{LCL} = N * Percent_{LCL}$$

⁵³ The surveyfreq procedure produces one-way to n-way frequency and crosstabulation tables from sample survey data. These tables include estimates of population totals, population proportions, and their standard errors. Confidence limits, coefficients of variation, and design effects are also available. The procedure provides a variety of options to customize the table display. Please reference [The SURVEYFREQ Procedure \(sas.com\)](https://www.sas.com/learn/procedures/survey/surveyfreq.html) for more information.

⁵⁴ SAS (previously "Statistical Analysis System") is a statistical software suite developed by the SAS Institute for data management, advanced analytics, multivariate analysis, business intelligence, criminal investigation, and predictive analytics.

⁵⁵ In statistics, a normal distribution, or "Gaussian" distribution, is a type of continuous probability distribution for a real-valued random variable.

$Percent_{LCL}$	= Percentage of sampling units after deducting a margin of error
$Universe\ Count_{LCL}$	= Total number of sampling units in the universe after deducting a margin of error
N	= Total number of sampling units in the sampling frame
pct	= Weighted percentage of sampling units with the error in the sampling frame
$SE\%$	= Standard error per unit, as applies to projecting proportions
$t_{\alpha/2}$	= Student's - t for projecting a one-sided confidence interval for a sample of this size

Our findings with mathematical demonstrations are as follows:

Percentage-Count Projection Results: Lead Disclosures

HUD requires PHAs to disclose any instances of lead-based paint to prospective tenants. We reviewed the lead disclosures and the Authority's lead-based paint inspection-risk assessment reports and determined that the Authority provided improper lead disclosures to tenants in 32 of the 66 units. This proportion amounts to a weighted average of 48.5 percent. Including a statistical margin of error, we can say, with a one-sided confidence interval of 95 percent, that there was a material deficiency in at least 42.0 percent of units tested. Extending this percentage to the universe of 2,252 records, at least 946 units of the Authority had a material deficiency for the attribute tested; however, this count could be higher.

Percentage calculation:	$48.5\% - (1.669 \times 3.8\%) \approx 42.0\% \text{ LCL}$
Total records projection:	$2,252 \times (48.5\% - (1.669 \times 3.8\%)) \approx 946 \text{ LCL}$

Percentage-Count Projection Results: Visual Assessments

For units with lead-based paint, HUD requires that visual assessments for deteriorated lead-based paint be conducted at least annually. We reviewed the units' visual assessments and determined that the Authority completed the visual assessments late for 49 of the 66 units. This proportion amounts to a weighted average of 74.4 percent. Including a statistical margin of error, we can say, with a one-sided confidence interval of 95 percent, that there was a material deficiency in at least 69.8 percent of the units tested. Extending this percentage to the universe of 2,252 records, at least 1,572 units of the Authority had a material deficiency for the attribute tested; however, this count could be higher.

Percentage calculation:	$74.4\% - (1.671 \times 2.8\%) \approx 69.8\% \text{ LCL}$
Total records projection:	$2,252 \times (74.4\% - (1.671 \times 2.8\%)) \approx 1,572 \text{ LCL}$

Percentage-Count Projection Results: Lead-Based Paint Inspections-Risk Assessments

HUD and EPA require certain information to be included in lead-based paint inspection and risk assessment reports. We reviewed the units' most recent lead-based paint inspection-risk assessment reports and determined that inspection-risk assessment reports that the Authority relied on for 31 of the 66 units did not include one or more of the following required elements: (1) building construction dates; (2) name, signature, and certification of the certified risk assessor; (3) the serial number of the XRF testing

device used; (4) all data collected from onsite testing, including the visual assessments of paint collection and XRF testing results; and (5) results of laboratory analysis for collected dust and soil samples. This amounts to a weighted average of 47.2 percent. Including a statistical margin of error, we can say, with a one-sided confidence interval of 95 percent, that there was a material deficiency in at least 44.6 percent of the units tested. Extending this percentage to the universe of 2,252 records, at least 1,004 units of the Authority had a material deficiency for the attribute tested; however, this count could be higher.

Percentage calculation:	$47.2\% - (1.671 \times 1.5\%) \approx 44.6\% \text{ LCL}$
Total records projection:	$2,252 \times (47.2\% - (1.671 \times 1.5\%)) \approx 1,004 \text{ LCL}$

Percentage-Count Projection Results: Units With Late Reevaluations

For properties with lead-based paint hazards identified, HUD requires periodic reevaluations every 2 years. We reviewed the units' most recent lead-based paint inspection-risk assessment reports and determined that the Authority did not complete reevaluations for 3 of 66 units as required. Due to the low number of findings associated with this deficiency, the weighted average was not extended to the universe of 2,252 records, and no projections were made for this deficiency.

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 findings and conclusions based on our audit objectives.

Appendixes

Appendix A – Auditee Comments and OIG’s Evaluation

Ref to OIG Evaluation – Auditee Comments



EXECUTIVE OFFICE
8120 Kinsman Road, Cleveland, Ohio 44104
P: (216) 348-5000 | F: (216) 348-4925

June 14, 2024

VIA EMAIL ONLY TO [REDACTED]

[REDACTED]
Senior Auditor, Office of Inspector General
U.S. Department of Housing and Urban Development
477 Michigan Ave, Room 1780
Detroit, Michigan 48226-2592

Dear Mr. [REDACTED]:

As mentioned previously, the Cuyahoga Metropolitan Housing Authority (CMHA) appreciates the time, effort, and engagement of the Auditors to review lead based paint (LBP) at our low rent housing portfolio. CMHA has a deep history in proactively managing LBP in housing. Dating from the 1990s, multi-million dollar projects have been completed to remove LBP components entirely from housing, attaining clearance and ensuring families continue to enjoy housing free from these hazards. A priority of our modernization projects is to render each free from these and other environmental conditions so housing can be readily sustained for generations to come.

More recently, CMHA has developed novel approaches to systemically managing the remaining portions of our LBP portfolio. From programming LBP disclosures to generate with leasing documents at the point of leasing to creating Work Orders (whether timed to occur in the present or to coincide with future dates for visual assessments, reevaluations, etc.), CMHA is leveraging technology to ensure that ongoing requirements for the management of LBP are satisfied. Further, either the modernization or disposition of remaining assets will continue to reduce the number of units containing LBP, and we look forward to the time where these issues are no longer relevant for any housing managed or controlled by CMHA. In the interim, we will continuously strive to improve the processes associated with management of LBP and welcome any dialogue or engagement with HUD to further these efforts.

Following are either comments or changes to sections in the Draft report. Language for addition appearing in **red** is meant to either clarify, explain, or contextualize information provided in the corresponding section. All page numbers refer to corresponding page numbers in the Draft report (PDF document pagination).

Section titled “What We Found”

- 1) Page 4 of PDF
 - a. Insert the phrase **of the limited sample size** immediately after “(nearly 63 percent)”
 - b. Insert the following after “(comprising 10 of the 15 units cited above)”



COMMITMENT ACCOUNTABILITY RESPECT EXCELLENCE SAFETY

CMHA provides reasonable accommodations to persons with disabilities. If you need an accommodation, including auxiliary aids and/or services, please contact CMHA’s Section 504/ADA Coordinator at 216-348-5000 (voice) or 1-800-750-0750 (Ohio Relay Service). Este documento está disponible a petición para interpretación o traducción al Español de gratis.

 **Comment 1 >**

Ref to OIG Evaluation – Auditee Comments



EXECUTIVE OFFICE
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Comment 2 >

Olde Cedar MROP and the relevant portions of Outhwaite were completely modernized with clearly defined scopes and monitoring activities to eliminate LBP components with the expenditure of millions of dollars. To the extent that we are aware in the present, CMHA met every grant requirement existing at the time of these projects and demonstrated that the LBP was identified, removed, and cleared. If the OIG/HUD now seeks what resembles an LBP inspection with XRF readings in 2023 – for projects completed in the 1990s – to demonstrate lead-free status, this ignores the specific documentation supplied demonstrating that during the course of these projects, LBP components were i) identified, ii) removed, and iii) clearance was achieved. Stated differently, to assess the completed units by XRF analyses post-modernization would have been a complete waste of funding provided by HUD for these projects (e.g., testing for the existence of something that was purposefully removed as part of the project and confirmed by third-party environmental consultants both during the course of construction and at clearance). Additionally, the records supplied to OIG in response to these requests have been relied upon by every CMHA Administration since the time the work was completed (approximately 25+ years).

Comment 3 >

- c. Insert the phrase **of the limited sample size** immediately after “(nearly 47 percent)”
- d. Insert the phrase **of the limited sample size** immediately after “(nearly 77 percent)”
- e. Insert the phrase **of the limited sample size** immediately after “(nearly 50 percent)”
- f. With respect to the statement “These issues occurred because the Authority stated that it was not aware of HUD’s requirements for managing cases of children with EBL”, CMHA observes that the statement is overly broad as it imprecisely refers to “these issues” without clarifying to what issues the statement pertains. The reference should be limited to aspects related to the confirmation and reporting of cases of EBL in children.

Comment 4 >

2) Page 5 of PDF

Comment 5 >

- a. With respect to the statement “(3) perform a search for historical lead based paint documentation...”, CMHA’s position is that this has been sufficiently documented and should not appear as a recommendation in this report.

Results of Audit

Section titled “The Authority Did Not Report Cases of Children with EBLs to HUD”

Comment 6 >

1) Page 13 of PDF

- a. With respect to the statement “The Authority’s Chief Executive Officer told us...”, CMHA offers the following response: While the CEO is generally aware of the LSHR, he delegates responsibility for compliance to Staff members. In spite of some of the technical findings resulting from this Audit, the Authority’s broader management of LBP has been, and continues to be, innovative and focused on removing risks associated with these components where feasible and managing them well where it is not



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 **Comment 7 >**

b. With respect to the statement “they were not aware of the LSHR’s requirements to (1) report...”, CMHA notes that this is inconsistent with what the Authority reported -- while aware generally of the requirement to report EBLs to HUD, there was no guidance or information made available to the PHA on how and to whom to report these instances prior to commencement of this audit.

 **Comment 8 >**

c. Concerning the statement “The Authority’s management also expressed that it had...”, note that this was in the context of a specific instance where the family relied on a form of test not consistent with HUD’s requirements

Section titled “The Authority Did Not Adequately Manage Lead-Based Paint and Lead-Based Paint Hazards in its Housing Units”

 **Comment 5 >**

1) Page 16 of PDF

a. Regarding the statement “...the Authority did not (1) maintain sufficient documentation to support...”, please refer to the previous explanation pertaining to this matter

 **Comment 9 >**

b. With respect to the statement “(2) ensure that lead based inspection and risk assessment reports...”, many instances of missing information from the reports sampled by OIG date back decades so there is no basis for explaining why a given report lacked information; nonetheless, all contemporaneous LBP risk assessments/inspections contain the required information

 **Comment 1 >**

c. Insert of **the limited sample size** within the parenthetical “(nearly 63 percent)”

Section titled “The Authority Did Not Consistently Perform Visual Assessments in a Timely Manner”

 **Comment 10 >**

1) Page 19 of PDF

a. For the statement “However, HUD had not issued a waiver pausing the requirement...”, CMHA observes that other than for emergent conditions during 2020 and much of 2021, no access was sought or given to Resident units as part of efforts to prevent the spread of COVID-19. Human to human contact was minimized throughout the United States as a preventative measure.

Section titled “Although the Authority Completed Risk Assessments, The Authority Did Not Consistently Complete Reevaluations as Required”

 **Comment 11 >**

1) Page 20 of PDF

a. Please insert the following after the last sentence in the Section:

The Authority has since implemented controls requiring Work Orders to be programmed in its system of record for each instance where reevaluations are required. These Work Orders are assigned to the Risk Assessor and calendered to populate within the required time intervals.



COMMITMENT ACCOUNTABILITY RESPECT EXCELLENCE SAFETY

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Ref to OIG Evaluation – Auditee Comments

 **Comment 12 >**



EXECUTIVE OFFICE
8120 Kinsman Road, Cleveland, Ohio 44104
P: (216) 348-5000 | F: (216) 348-4925

Section titled “The Authority Did Not Always Disclose Lead-Based Paint and Provide Complete Lead Disclosures to Tenants as Required”

- 1) Page 21 of PDF
 - a. Please insert the following after the last sentence in the Section:
During and since the audit period, the Authority implemented LBP Disclosures as part of the Leasing Packet generated from its system of record (known as YARDI – Voyager). The corresponding LBP Disclosure is uploaded to the system and associated with the Unit ID so there is no discretion at the point of leasing concerning which LBP Disclosure applies to the unit – if any. The corresponding LBP Disclosure prints as part of the Lease packet so it cannot be missed or confused with a different LBP Disclosure. Approximately 6,000 units (LRPH & Multifamily) have been accounted for in YARDI under this initiative (another 2286 units are not subject to the LSHR as each was built after 1978). During the phased implementation, the Authority also retrained all property managers concerning these requirements and how to obtain the correct LBP disclosure for their property. Random audits will be made to ensure the effectiveness of these controls.

Should you have any questions or desire to discuss any aspect of our response, please contact Mr. Jeffrey Wade at wadej@cmha.net.

Sincerely,

Jeffery K. Patterson
Chief Executive Officer

Cc: Brian Murray (email only)



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OIG Evaluation of Auditee Comments

- Comment 1 The Authority suggested that we add “of the limited sample size.” The report states that of our sample of 24 units that the Authority managed as lead-free, we determined that the Authority did not maintain sufficient documentation to support that 15 units (nearly 63 percent) and their associated developments did not contain lead-based paint. The word sample already indicates that we reviewed a part of the universe. Therefore, we did not add the Authority’s suggested language to the report.
- Comment 2 The Authority suggested that we add language to state that certain projects associated with our sample of lead-free units had all lead-based paint identified, removed, and cleared based on the documentation that it provided. According to HUD’s regulations at 24 CFR 35.115(a)(4) and (5), public housing is considered lead free if either (1) a lead-based paint inspection found that the property did not have lead-based paint or (2) all lead-based paint was identified and removed, and clearance was achieved. As stated in the report, the Authority did not provide documentation to support that the units were lead free. Therefore, we did not add the Authority’s suggested language to the report.
- Comment 3 The Authority suggested in items 1c, 1d, and 1e, that we add “of the limited sample size.” We did not revise the report because those figures were statistical samples from which projections were made to the universe. Therefore, framing the samples as “limited” would be a mischaracterization.
- Comment 4 The Authority stated that the following excerpt from the report, “These issues occurred because the Authority stated that it was not aware of HUD’s requirements for managing cases of children with EBLLs” was overly broad and did not clarify what “these issues” pertained to. We agree with the Authority’s statement. Therefore, we revised the third paragraph in the What We Found section of the report from “These issues” to state, “The issues related to reporting and notifying HUD of children with EBLLs, and the associated environmental investigations occurred because...”
- Comment 5 The Authority asserted that the following excerpt from the report, “(3) perform a search for historical lead-based paint documentation...” was not needed because this issue already had been sufficiently documented. We disagree with the Authority’s statement. The Authority did not provide documentation to support that the units cited in the report were lead free as required in HUD’s regulations at 24 CFR 35.115(a)(4) and (5), as explained in comment 2 above and in the report.
- Comment 6 The Authority stated that in spite of some of the technical findings resulting from this audit, the Authority’s broader management of lead-based paint has been and continues to be innovative and focused on removing risks associated with these components when feasible and managing them well when it is not. While we

acknowledge that the Authority has already taken some actions to address the issues we identified in the report, we found that improvements are still needed. Therefore, the Authority should work with HUD to address the issues cited in the report.

Comment 7

The Authority stated that with respect to the statement, "...they were not aware of the LSHR's requirements to (1) report...", this statement is inconsistent with what the Authority reported, which was that while it was generally aware of the requirement to report EBLLs to HUD, there was no guidance or information made available to the PHA on how and to whom to report these instances before the start of this audit.

We partially agree with the Authority's statements. Therefore, we revised page 7 to state that "according to the Authority's management officials, whom the chief executive officer delegated responsibility for understanding the LSHR's requirements, they were generally aware of LSHR's reporting requirement for EBLLs; however, they did not report cases to HUD due to uncertainty regarding who in HUD should receive the information and how to report it. Therefore, instead of the Authority's contacting HUD for clarification, the Authority disregarded the requirement." We also updated the What We Found section and page 6 of the report to reflect this change.

The applicable requirements were publicly available through the LSHR (first published in 1999) and Notice PIH 2017-13 (which was issued in August 2017) well before our audit started in January 2023. Both the LSHR and Notice PIH 2017-13 provide specific guidance regarding the steps that must be taken for EBLLs, including reporting confirmed cases to the appropriate HUD field office and HUD's Office of Lead Hazard Control within 5 days of confirmation. Therefore, the Authority should have contacted HUD for clarification regarding the EBLL reporting requirement rather than choosing to not comply.

Comment 8

The Authority explained that the statement, "The Authority's management also expressed that it had no control over the medical procedures that a family may receive with respect to a reported EBLL in a child" was in the context of the specific instance in which the family relied on a form of test not consistent with HUD's requirements. We agree and revised page 7 of the report to state, "The Authority's management also expressed that it had no control over the medical procedures that a family may receive with respect to the reported EBLL case."

Comment 9

The Authority stated that with respect to the statement, "(2) ensure that lead-based paint inspection and risk assessment reports," many instances of missing information from the reports sampled by OIG date back decades so there is no basis for explaining why a given report lacked information; nonetheless, all contemporaneous lead-based paint risk assessments-inspections contain the required information.

As stated in finding 2 in the report, while we acknowledge that the Authority's reports for the units in our sample that had been completed after 2015 were generally compliant, the older reports for which we cited issues were the most recent available for the sample units tested. The Authority had been relying on the accuracy of the lead-based determinations in those reports, despite missing significant required elements, such as XRF testing and lead dust testing. As a result, HUD and the Authority lacked assurance that the inspection and risk assessment reports completed before the Authority used third-party contractors were sufficient.

- Comment 10 We acknowledge that the COVID-19 pandemic presented challenges; however, as stated in the report, HUD did not waive its requirement for PHAs to conduct visual assessments for lead-based paint in applicable public housing units every 12 months. The required visual assessments were needed to identify deteriorated lead-based paint and other lead-based paint hazards that could impact the health of tenants, including possible lead poisoning in children residing in its public housing units.
- Comment 11 The Authority requested that we add statements to the report regarding its implemented controls requiring work orders to be programmed in its system. We did not add the Authority's statements to the report because the Authority did not provide documentation showing that these controls had been programmed in its system. Therefore, the Authority should work with HUD to ensure that the implemented controls address the issues cited in the report and the related recommendation 2D and implement policies and procedures that align with HUD's requirements and controls to ensure that reevaluations are completed when required.
- Comment 12 The Authority requested that we add statements to the report regarding (1) the Authority's implementation of lead-based paint disclosures as part of its leasing package, (2) property managers' training, and (3) related audits to ensure effectiveness of controls. We acknowledge the Authority's statements on actions taken toward providing its tenants with accurate lead disclosures. However, we did not add the Authority's suggested language to the report because the Authority did not provide the application package, evidence of training, and other documents to support its statements. Therefore, the Authority should work with HUD to ensure that its actions address the issues cited in the report and the related recommendation 2E and implement controls to ensure that accurate lead disclosures are provided to prospective and current tenants.

Appendix B – Summary of OIG Review of Lead-Based Paint Inspection and Risk Assessment Reports

Sample number	Missing assessor's information ⁵⁶	Missing serial number of XRF device used	Missing XRF and paint data collected on site	Missing dust or soil lab analysis	Missing construction dates	Complied with requirements? Y-N
1	X			X		N
2	X			X		N
3	X			X		N
4	X			X		N
5	X			X		N
6	X			X		N
7	X			X		N
8	X			X		N
9	X			X		N
10						Y
11						Y
12						Y
13						Y
14						Y
15						Y
16						Y
17						Y
18						Y
19						Y
20	X	X		X	X	N
21	X	X		X	X	N
22	X	X		X	X	N
23	X	X		X	X	N
24	X	X		X	X	N
25	X	X		X	X	N

⁵⁶ The category of “missing assessor’s information” includes the name, signature, or certification of the individual who completed the inspection or risk assessment.

Sample number	Missing assessor's information ⁵⁶	Missing serial number of XRF device used	Missing XRF and paint data collected on site	Missing dust or soil lab analysis	Missing construction dates	Complied with requirements? Y-N
26	X	X		X	X	N
27	X	X		X	X	N
28	X	X	X	X	X	N
29	X	X	X	X	X	N
30	X	X	X	X	X	N
31	X	X	X	X	X	N
32	X	X	X	X	X	N
33	X	X	X	X	X	N
34	X	X	X	X	X	N
35	X	X	X	X	X	N
36	X	X	X	X	X	N
37	X	X	X	X	X	N
38	X	X	X	X	X	N
39	X	X	X	X	X	N
40	X	X	X	X	X	N
41						Y
42						Y
43						Y
44						Y
45						Y
46						Y
47						Y
48						Y
49						Y
50						Y
51						Y
52						Y
53						Y
54						Y
55						Y

Sample number	Missing assessor's information ⁵⁶	Missing serial number of XRF device used	Missing XRF and paint data collected on site	Missing dust or soil lab analysis	Missing construction dates	Complied with requirements? Y-N
56						Y
57						Y
58	X	X		X	X	N
59						Y
60						Y
61						Y
62						Y
63						Y
64						Y
65						Y
66						Y
Totals	31	22	13	31	22	31⁵⁷

⁵⁷ This total includes all "No" answers in this column. Therefore, 31 of the 66 reports did not comply with requirements.

Appendix C – Federal Requirements

The United States Code at 42 U.S.C. 1437d(f)(1) states that each contract for contributions for a PHA 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 HUD 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 regulations at 24 CFR 35.88(a)(1) state that the lessor must provide the lessee with an EPA-approved lead hazard information pamphlet.

HUD regulations at 24 CFR 35.88(a)(2) state that the lessor must disclose to the lessee the presence of any known lead-based paint or lead-based paint hazards in the target housing being leased. The lessor must also disclose any additional information available concerning the known lead-based paint or lead-based paint hazards, such as the basis for the determination that lead-based paint or lead-based paint hazards exist, the location of the lead-based paint or lead-based paint hazards, and the condition of the painted surfaces.

HUD regulations at 24 CFR 35.88(a)(3) state that the lessor must disclose the existence of any available records or reports pertaining to lead-based paint or lead-based paint hazards. The lessor must disclose any additional information available concerning the known lead-based paint or lead-based paint hazards, such as the basis for the determination that lead-based paint or lead-based paint hazards exist, the location of the lead-based paint or lead-based paint hazards, and the condition of the painted surfaces.

HUD regulations at 24 CFR 35.88(a)(4) state that the lessor must provide the lessee with any records or reports available to the lessor pertaining to lead-based paint or lead-based paint hazards in the target housing being leased. This requirement includes records and reports regarding common areas. This requirement also includes records and reports regarding other residential dwellings in multifamily target housing, provided that such information is part of an evaluation or reduction of lead-based paint or lead-based paint hazards in the target housing as a whole.

HUD regulations at 24 CFR 35.92(b) state that each contract to lease target housing must include, as an attachment or within the contract, the following elements:

(2) A statement by the lessor disclosing the presence of known lead-based paint or lead-based paint hazards in the target housing being leased or indicating no knowledge of the presence of lead-based paint or lead-based paint hazards. The lessor must also disclose any additional information available concerning the known lead-based paint or lead-based paint hazards, such as the basis for the determination that lead-based paint or lead-based paint hazards exist in the housing, the location of the lead-based paint or lead-based paint hazards, and the condition of the painted surfaces.

(3) A list of any records or reports available to the lessor pertaining to lead-based paint or lead-based paint hazards in the housing that have been provided to the lessee. If no such records or reports are available, the lessor must indicate so.

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 the 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 35.110 define a lead-based paint hazard as any condition that causes exposure to lead from dust-lead hazards; soil-lead hazards; or lead-based paint that is deteriorated or present in chewable surfaces, friction surfaces, or impact surfaces and that would result in adverse human health effects.

HUD's regulations at 24 CFR 35.110 define target housing as any housing constructed before 1978, except housing for the elderly or persons with disabilities (unless a child of less than 6 years of age resides or is expected to reside in such housing for the elderly or persons with disabilities) or any zero-bedroom dwelling.

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 that 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); (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); and (5) residential property in which all lead-based paint has been identified and removed and clearance has been achieved in accordance with 40 CFR 745.227(b)(e) before September 15, 2000, or in accordance with sections 35.1320, 35.1325, and 35.1340 on or after September 15, 2000. (This exemption does not apply to residential property where enclosure or encapsulation has been used as a method of abatement.)

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 PHA 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 35.1115(b) state that if a lead-based paint inspection has found the presence of lead-based paint or if no lead-based paint inspection has been conducted, the PHA must conduct a risk assessment according to the following schedule, unless a risk assessment that meets the conditions of section 35.165(b) has already been completed.

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 PHA 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 PHA must conduct interim controls, in accordance with 24 CFR 35.1330, of the lead-based paint hazards identified in the most recent risk assessment. (1) Interim controls of dwelling units in which any child who is less than 6 years of age resides and common areas servicing those dwelling units must be completed within 90 days of the evaluation under 24 CFR 35.1330. If a unit becomes newly occupied by a family with a child of less than 6 years of age or such child moves into a unit, interim controls must be completed within 90 days after the new occupancy or move-in if they have not already been completed. (2) Interim controls in dwelling units not occupied by families with one or more children of less than 6 years of age, common areas servicing those units, and the remaining portions of the residential property must be completed no later than 12 months after completion of the evaluation conducted under 24 CFR 35.1115.

HUD's regulations at 24 CFR 35.1120(c) state that the PHA 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(a) provide that within 15 calendar days after being notified by a public health department or other medical health care provider that a child of less than 6 years of age living in a dwelling unit to which this subpart applies has been identified as having an EBLL, the PHA must complete an environmental investigation of the dwelling unit in which the child lived at the time the

blood was last sampled and of common areas servicing the dwelling unit. The environmental investigation is considered complete when the PHA receives the environmental investigation report. The requirements of this paragraph apply regardless of whether the child is or is not still living in the unit when the PHA receives the notification of the EBLL. The requirements of this paragraph do not apply if the PHA conducted an environmental investigation of the unit and common areas servicing the unit between the date on which the child's blood was last sampled and the date when the PHA received the notification of the EBLL. If the PHA conducted a risk assessment of the unit and common areas servicing the unit during that period, the PHA need not conduct another risk assessment there but must conduct the elements of an environmental investigation not already conducted during the risk assessment. If a public health department has already conducted an evaluation of the dwelling unit in regard to the child's EBLL case, the requirements of this paragraph do not apply.

HUD's regulations at 24 CFR 35.1130(b) state that after receiving information from a person who is not a medical health care provider that a child of less than 6 years of age living in a dwelling unit covered by this subpart may have an EBLL, the PHA should immediately verify the information with the public health department or other medical health care provider. If that department or provider denies the request, such as because it does not have the capacity to verify that information, the PHA must send documentation of the denial to its HUD field office, which must make an effort to verify the information. If that department or provider verifies that the child has an EBLL, such verification will constitute notification, and the housing agency must take the action required in paragraphs (a) and (c) of this section.

HUD's regulations at 24 CFR 35.1130(e) provide that (1) the PHA must report the name and address of a child identified as having an EBLL to the public health department within 5 business days of being so notified by any other medical health care professional, (2) the PHA must report each confirmed case of a child with an EBLL to the HUD field office and the HUD Office of Lead Hazard Control and Healthy Homes within 5 business days of being so notified, and (3) the PHA must provide to the HUD field office documentation that it has conducted the activities in paragraphs (a) through (d) of this section within 10 business days of the deadline for each activity.

HUD's regulations at 24 CFR 35.1135 state that a PHA may use financial assistance received under the modernization program for the notice, evaluation, and reduction of lead-based paint hazards.

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) state that lead-based paint inspections must be performed in accordance with methods and standards established by either a State or tribal program authorized by EPA under 40 CFR 745.324 or by EPA at 40 CFR 745.227(b) and (h).

EPA's regulations at 40 CFR 745.227(b)(1) state that an inspection must be conducted only by a person certified by EPA as an inspector or risk assessor and, if conducted, must be conducted according to the procedures in this paragraph.

EPA's regulations at 40 CFR 745.227(b)(4) state that the certified inspector or risk assessor must prepare an inspection report, which must include the following information: (i) date of each inspection; (ii) address of building; (iii) date of construction; (iv) apartment numbers (if applicable); (v) name, address, and telephone number of the owner or owners of each residential dwelling or child-occupied facility; (vi) name, signature, and certification number of each certified inspector or risk assessor conducting testing; (vii) name, address, and telephone number of the certified firm employing each inspector or risk assessor if applicable; (viii) each testing method and device or sampling procedure employed for paint analysis, including quality control data and, if used, the serial number of any XRF device; (ix) specific locations of each painted component tested for the presence of lead-based paint; and (x) the results of the inspection expressed in terms appropriate to the sampling method used.

EPA's regulations at 40 CFR 745.227(d)(1) state that a risk assessment must be conducted only by a person certified by EPA as a risk assessor and, if conducted, must be conducted according to the procedures in this paragraph.

EPA's regulations at 40 CFR 745.227(d)(11) state that the certified risk assessor must prepare a risk assessment report, which must include the following information: (i) date of assessment; (ii) address of each building; (iii) date of construction of buildings; (iv) apartment number (if applicable); (v) name, address, and telephone number of each owner of each building; (vi) name, signature, and certification of the certified risk assessor conducting the assessment; (vii) name, address, and telephone number of the certified firm employing each certified risk assessor if applicable; (viii) name, address, and telephone number of each recognized laboratory conducting analysis of collected samples; (ix) results of the visual inspection; (x) testing method and sampling procedure for paint analysis employed; (xi) specific locations of each painted component tested for the presence of lead; (xii) all data collected from onsite testing, including quality control data and if used, the serial number of any XRF device; (xiii) all results of laboratory analysis on collected paint, soil, and dust samples; (xiv) any other sampling results; (xv) any background information collected under paragraph (d)(3) of this section; (xvi) to the extent that they are used as part of the lead-based paint hazard determination, the results of any previous inspections or analyses for the presence of lead-based paint or other assessments of lead-based paint-related hazards; (xvii) a description of the location, type, and severity of identified lead-based paint hazards and any other potential lead hazards; and (xviii) a description of interim controls or abatement options for each identified lead-based paint hazard and a suggested prioritization for addressing each hazard. If the use of an encapsulant or enclosure is recommended, the report must recommend a maintenance and monitoring schedule for the encapsulant or enclosure.

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 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 35.1330 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 35.1340(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 (a) 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 regulations at 24.CFR.1355(b)(1) state that reevaluations must be conducted if hazard reduction has been conducted to reduce lead-based paint hazards found in a risk assessment, except that reevaluation is not required if any of the following cases are met: (i) an initial risk assessment found no lead-based paint hazards; (ii) a lead-based paint inspection found no lead-based paint; or (iii) all lead-based paint was abated in accordance with section 35.1325, provided that no failures of encapsulations or enclosures have been found during visual assessments or during other observations by maintenance and repair workers.

HUD's regulations at 24.CFR.1355(b)(2) provide that reevaluations must be conducted to identify (i) deteriorated paint surfaces with known or suspected lead-based paint, (ii) deteriorated or failed interim controls, (ii) dust-lead hazards, and (iv) soil that is newly bare with lead levels equal to or above the standards in 35.1320(b)(2).

HUD's regulations at 24.CFR.1355(b)(3) provide that each reevaluation must be performed by a certified risk assessor.

HUD's regulations at 24.CFR.1355(b)(4) state that each reevaluation must be conducted in accordance with the following schedule if a risk assessment or other evaluation has found deteriorated lead-based paint in the residential property, a soil-lead hazard, or a dust-lead hazard on a floor or interior window sill. (Window troughs are not sampled during reevaluation.) The first reevaluation must be conducted no later than 2 years from completion of hazard reduction. Subsequent reevaluation must be conducted at intervals of 2 years, plus or minus 60 days. To be exempt from additional reevaluation, at least two consecutive reevaluations conducted at such 2-year intervals must be conducted without finding lead-based paint hazards or a failure of an encapsulation or enclosure. If, however, a reevaluation finds lead-based paint hazards or a failure, at least two more consecutive reevaluations conducted at such 2-year intervals must be conducted without finding lead-based paint hazards or a failure.

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 of presumption of lead-based paint or hazards.
- An inventory of lead hazard controls, if any.
- Lead-safe maintenance works 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 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, 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 multifamily 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 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 to 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 with 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 from clearance, but 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 because 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 (for example, HUD LSHR, EPA's RRP rule, the Occupational Safety and Health Administration's Lead in Construction standard, EPA-State-tribal waste, and lead regulations), or other related matters.