



# HUD's Office of Multifamily Housing Programs, Washington, DC

## HUD's Oversight of Lead in the Water of Multifamily Housing Units

**Office of Audit, Region 5  
Chicago, IL**

**Audit Report Number: 2020-CH-0005  
August 21, 2020**



**OFFICE OF INSPECTOR GENERAL**  
U.S. Department of Housing and Urban Development

**To:** Tobias J. Halliday, Director of Multifamily Asset Management and Portfolio Oversight, HTN

//signed//

**From:** Kelly Anderson, Regional Inspector General for Audit, 5AGA

**Subject:** HUD Needs To Improve Its Oversight of Lead in the Water of Multifamily Housing Units

Attached is the U.S. Department of Housing and Urban Development (HUD), Office of Inspector General's (OIG) final results of our review of HUD's oversight of lead in the water of multifamily housing units.

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

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

If you have any questions or comments about this report, please do not hesitate to call me at 312-913-8499.

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**HUD Needs To Improve Its Oversight of Lead in the Water of Multifamily Housing Units**

## Highlights

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### What We Audited and Why

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We audited the U.S. Department of Housing and Urban Development's (HUD) oversight of lead in the water of multifamily housing units based on our goal of strengthening the soundness of multifamily housing. The audit was part of the activities in our fiscal year 2019 audit plan. Our objective was to determine whether HUD's Office of Multifamily Housing Programs had sufficient policies, procedures, and controls to ensure that households living in multifamily housing units had a sufficient supply of safe drinking water.

### What We Found

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HUD's Office of Multifamily Housing Programs did not have sufficient policies, procedures, and controls to ensure that households living in multifamily housing units had a sufficient supply of safe drinking water. Multifamily housing properties were served by public water systems that reported levels of lead above the Environmental Protection Agency's lead action level. However, HUD had limited requirements concerning lead in the drinking water of multifamily housing units and did not require multifamily property owners or management agents to take action regarding the potential for lead in the drinking water. These weaknesses occurred because HUD relied on the Agency to ensure that public water systems provided water that was safe to drink. As a result, HUD lacked assurance that households lived in multifamily housing units that had a sufficient supply of safe drinking water.

### What We Recommend

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We recommend that the Director of Multifamily Asset Management and Portfolio Oversight develop and implement an action plan that includes sufficient policies, procedures, and controls that address households living in multifamily housing units having a sufficient supply of safe drinking water.

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# Background and Objective

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The U.S. Department of Housing and Urban Development's (HUD) Office of Multifamily Housing Programs is responsible for the overall management, development, direction, and administration of HUD's multifamily housing programs. The Office administers the Federal Housing Administration's (FHA) mortgage insurance programs, which facilitate the construction, substantial rehabilitation, purchase, and refinancing of multifamily properties, as well as subsidized housing programs, which provide rental assistance to low-income families, the elderly, and those with disabilities. HUD's multifamily housing units must meet minimum standards of health and safety.

The Environmental Protection Agency states that although the greatest exposure to lead is swallowing or breathing in lead paint chips and dust, lead also can be found in some household plumbing materials and water service lines. The Agency states that children ages 6 and under are at the greatest risk. Pregnant women and nursing mothers should avoid exposure to lead to protect their children. The Agency estimates that drinking water can make up 20 percent or more of a person's total exposure to lead. Infants who consume mostly mixed formula can receive 40 to 60 percent of their exposure to lead from drinking water. Children's exposure to lead in drinking water may cause (1) behavior and learning problems, (2) a lower intelligence quotient (IQ) and hyperactivity, (3) slowed growth, (4) hearing problems, and (5) anemia. Lead is also harmful to adults. Adults exposed to lead can suffer from increased blood pressure, decreased kidney function, and reproductive problems in both men and women.

The Safe Drinking Water Act requires the Environmental Protection Agency to determine levels of contaminants in drinking water at which no adverse health effects are likely to occur with an adequate margin of safety. Because lead is a toxic metal that is harmful to human health, even at low exposure, the Agency and the Centers for Disease Control and Prevention agree that there is no known safe level of lead in a child's blood. The maximum contaminant level goal for lead is zero.

The Environmental Protection Agency sets an enforceable regulation called a maximum contaminant level based on the maximum contaminant level goal for most contaminants. Maximum contaminant levels are set as close to the maximum contaminant level goal as possible, considering cost, benefits, and the ability of public water systems to detect and remove contaminants using suitable technologies. However, because lead contamination of drinking water often results from corrosion of the plumbing materials belonging to water system customers, the Agency established a treatment technique rather than a maximum contaminant level for lead, which requires water systems to control the corrosivity of their water. Further, if more than 10 percent of tap water samples exceed the Agency's lead action level of 15 parts per

billion,<sup>1</sup> water systems are required to take additional actions.<sup>2</sup> The Agency's action level of 15 parts per billion for lead is not a health-based standard or a standard for establishing a safe level of lead in a home. It is a measure of the effectiveness of the corrosion control treatment in water systems. Therefore, exposure to lead from water may occur even though the action level is not exceeded. In addition, site specific remediation strategies such as replacement of customer owned lead service lines and plumbing components is typically the responsibility of the homeowner.

The U.S. Food and Drug Administration limits the amount of lead in bottled water to 5 parts per billion.

Based on data from HUD's Tenant Rental Assistance Certification System, nearly 1.4 million households reside in housing subsidized through HUD's Office of Multifamily Housing Programs' programs.<sup>3</sup> The nearly 1.4 million households include nearly 2.2 million members of whom more than 256,000 are children less than 6 years of age. HUD's Office generally does not maintain data, such as the household size and the age of the household members, for the households residing in housing under its unsubsidized programs. However, based on HUD's active multifamily portfolio property level data as of March 2019, HUD's inventory included at least 6,600 unsubsidized multifamily properties with at least 835,000 units.

Our objective was to determine whether HUD's Office of Multifamily Housing Programs had sufficient policies, procedures, and controls to ensure that households living in multifamily housing units had a sufficient supply of safe drinking water.

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<sup>1</sup> This could also be stated if the 90<sup>th</sup> percentile lead level is greater than the Agency's lead action level of 15 parts per billion.

<sup>2</sup> The additional actions could include taking further steps to control the corrosivity of their water, educating the public about lead in drinking water and actions consumers can take to reduce their exposure to lead, and replacing lead service lines.

<sup>3</sup> HUD's Tenant Rental Assistance Certification System is a multifamily online system developed to help improve financial controls over assisted housing programs by automating manual procedures and incorporating automated controls. The nearly 1.4 million households were participants of HUD's Section 8 Project-Based Assistance, Rental Assistance, Rent Supplement, Section 236, Section 811 Project Rental Assistance Demonstration, Below Market Interest Rate, Sections 202 and 811 Project Rental Assistance Contract, and Section 202 Project Assistance Contract programs.

# Results of Audit

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## **Finding: HUD’s Oversight of Lead in the Water of Multifamily Housing Units Had Weaknesses**

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HUD’s Office of Multifamily Housing Programs did not have sufficient policies, procedures, and controls to ensure that households living in multifamily housing units had a sufficient supply of safe drinking water.<sup>4</sup> Multifamily housing properties were served by public water systems that reported levels of lead above the Environmental Protection Agency’s lead action level. However, HUD had limited requirements concerning lead in the drinking water of multifamily housing units and did not require multifamily property owners or management agents to take action regarding the potential for lead in the drinking water. These weaknesses occurred because HUD relied on the Agency to ensure that public water systems provided water that was safe to drink. As a result, HUD lacked assurance that households lived in multifamily housing units that had a sufficient supply of safe drinking water.

### **Multifamily Housing Properties Located in Cities Served by Public Water Systems That Exceeded the Lead Action Level**

We selected the following five public water systems that reported levels of lead above the Environmental Protection Agency’s action level of 15 parts per billion: (1) Providence Water, (2) City of Newark’s Department of Water and Sewer Utilities, (3) Pittsburgh Water and Sewer Authority, (4) Green Bay Water Utility, and (5) Portland Water Bureau.<sup>56</sup> Based on data from HUD’s Integrated Real Estate Management System, there were more than 400 multifamily housing properties with more than 36,000 units located in the largest cities served by the selected public water systems.<sup>7</sup> The following table shows the number of properties and units located in each city by public water system.

Public water system	Location	Properties	Units
Providence Water	Providence, RI	71	5,558
City of Newark’s Department of Water and Sewer Utilities	Newark, NJ	83	10,684
Pittsburgh Water and Sewer Authority	Pittsburgh, PA	142	10,987
Green Bay Water Utility	Green Bay, WI	12	950
Portland Water Bureau	Portland, OR	114	8,064
<b>Totals</b>		<b>422</b>	<b>36,243</b>

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<sup>4</sup> See appendix B of this audit report for applicable criteria.

<sup>5</sup> See the Scope and Methodology section of this audit report for how we selected the public water systems.

<sup>6</sup> Lead can be found in some water service lines and household plumbing materials, such as pipes, soldering, and faucets.

<sup>7</sup> HUD’s Integrated Real Estate Management System is the official source of data on HUD’s Office of Multifamily Housing Programs’ portfolio of insured and assisted properties.

We obtained lead testing results during the period January 2016 through February 2019 from Providence Water, the Pittsburgh Water and Sewer Authority, the Green Bay Water Utility, and the Portland Water Bureau and compared the addresses where the water was tested for lead to the addresses, based on data from HUD’s Integrated Real Estate Management System, of the applicable multifamily housing properties.<sup>8</sup> The following table shows by location the number of multifamily housing properties for which the public water systems provided documentation to support that the water was tested for lead, the number of tests at the multifamily housing properties, and the lowest and highest amounts of lead detected in the water in parts per billion.<sup>9</sup>

Location	Multifamily properties	Number of tests	Lowest amount <sup>10</sup>	Highest amount
Providence, RI	2	2	1.0	1.6
Pittsburgh, PA	28	73	No lead detected	23.0
Portland, OR	31	51	0.07	58.9
<b>Totals</b>	<b>61</b>	<b>126</b>		

Further, the following table shows by location the number of lead testing results provided by the public water systems and associated with the multifamily housing properties for which no lead was detected and the number of test results for which the amount of lead detected in the water was 1 part per billion or less, more than 1 part per billion but no more than 5 parts per billion, more than 5 parts per billion but no more than 10 parts per billion, more than 10 parts per billion but no more than 15 parts per billion, more than 15 parts per billion but no more than 20 parts per billion, and more than 20 parts per billion.

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<sup>8</sup> The City of Newark’s Department of Water and Sewer Utilities had not provided lead testing results as of February 2020.

<sup>9</sup> Due to multiple issues with information included in the lead testing results provided by the public water systems and from HUD’s Integrated Real Estate Management System, we may not have been able to match addresses where the water was tested for lead to the addresses of the multifamily housing properties. Therefore, there may be additional lead testing results associated with the multifamily housing properties. Further, we were not able to definitively match any addresses associated with the Green Bay Water Utility’s lead testing results to the addresses of the multifamily housing properties located in Green Bay, WI.

<sup>10</sup> Analytical methods for lead testing have a minimum reporting level, or the smallest measured concentration of lead that can be reliably measured. Results that are less than the minimum reporting level are represented as no lead detected or less than the minimum reporting level. An attorney for the Pittsburgh Water and Sewer Authority stated that the Pittsburgh Water and Sewer Authority used seven different laboratories to test water for lead and no lead detected represented different minimum reporting levels for several of the laboratories. The highest possible minimum reporting level that no lead detected represented was less than 5 parts per billion. However, it would take the Pittsburgh Water and Sewer Authority substantial research to identify the minimum reporting levels associated with the no-lead-detected results.



Location	Amount of lead detected in the water at multifamily housing properties						
	No lead detected <sup>11</sup>	≤ 1	> 1 through 5	> 5 through 10	> 10 through 15	> 15 through 20	> 20
Providence, RI		1	1				
Pittsburgh, PA	25	2	40	2	2	1	1
Portland, OR		34	11	5			1
<b>Totals</b>	<b>25</b>	<b>37</b>	<b>52</b>	<b>7</b>	<b>2</b>	<b>1</b>	<b>2</b>

### Limited Requirements Concerning Lead in Drinking Water of Multifamily Housing Units

We reviewed HUD’s requirements applicable to lead in drinking water. For HUD’s multifamily housing units, HUD’s regulations state that each building’s domestic water system must be free of health and safety hazards and that when applicable, a dwelling unit must have an adequate source of potable water.<sup>12</sup> Further, HUD requires that each multifamily living unit be provided with a continuing and sufficient supply of safe water under adequate pressure and of appropriate quality for all household uses.

A senior advisor in HUD’s Office of Multifamily Asset Management and Portfolio Oversight stated that a failure to provide an adequate source of potable water to multifamily buildings and dwelling units would be a default of an owner’s housing assistance payments contract, the regulatory agreement, or both.

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**HUD did not require actions to reduce the levels of lead in the water of multifamily housing units when public water systems exceeded the lead action level.**

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However, HUD’s Office of Multifamily Housing Programs did not require testing for or actions to reduce the levels of lead in the water of multifamily housing units when a public water system exceeded the Environmental Protection Agency’s action level for lead of 15 parts per billion.

The senior advisor stated that HUD’s Office of Multifamily Housing Programs relied on the Environmental Protection Agency to ensure that public water systems provide a source of water that conformed to the Safe Drinking Water Act. Further, absent notification from or a determination of the Agency, a public water system, public health department, or other appropriate entity that the water provided by a public water system was not potable or safe to drink, HUD’s Office of Multifamily Housing Programs would assume that the water a unit received from a public water system was potable and safe to drink. However, an environmental

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<sup>11</sup> Because the Pittsburgh Water and Sewer Authority did not provide the minimum reporting levels associated with the no-lead-detected results (see footnote 10), the highest possible minimum reporting level that no lead detected represented was less than 5 parts per billion, and we wanted to include in the table the number of lead-testing results associated with the multifamily housing properties for which the amount of lead detected in the water was 1 part per billion or less and more than 1 part per billion but no more than 5 parts per billion, we included a separate column for the no-lead-detected results.

<sup>12</sup> HUD’s Office of Multifamily Housing Programs has not specifically defined what qualifies as potable water. However, potable water is generally defined as water that is considered safe to drink.

engineer in the Agency's Office of Ground Water and Drinking Water said that even if a public water system's 90<sup>th</sup> percentile value for lead did not exceed the Agency's action level of 15 parts per billion, it did not mean that the water was safe to drink in the homes that were not tested. Further, the Centers for Disease Control and Prevention stated that the only way to know whether tap water contains lead is to have it tested and no safe level of exposure to lead has been identified.

In response to the water crisis in the City of Flint and Genesee County, MI, HUD's former Deputy Assistant Secretary for Public Housing and Voucher Programs and former Deputy Assistant Secretary for Multifamily Housing issued a joint memorandum, dated April 6, 2016, to the Director of HUD's Detroit Office of Public Housing and the former Asset Management Division Director/Satellite Office Coordinator in HUD's Office of Multifamily Housing Programs' Detroit regional satellite office. The joint memorandum stated that HUD was in the process of drafting a notice that would provide further guidance on the housing quality standards and uniform physical condition standards on water supply. However, as of February 2020, HUD had not issued the notice. The senior advisor in HUD's Office of Multifamily Asset Management and Portfolio Oversight said that HUD and the Environmental Protection Agency had formed a task force to address lead in drinking water. However, the senior advisor did not provide documentation to support the objective of the task force because HUD would need the Agency's approval to share documents from the task force. Further, as of February 2020, HUD's Office of Multifamily Housing Programs had not provided documentation to support that it was working on policies, guidance, controls, or actions specifically related to lead in the water of multifamily housing units. However, HUD is drafting a proposed rule for the implementation of the National Standards for the Physical Inspection of Real Estate (NSPIRE)<sup>13</sup> in which HUD plans to include a description of a water building system. Through the draft proposed rule, HUD plans to also seek comments on a revision to its existing regulations for water safety.

In addition, on August 9, 2019, the Environmental Protection Agency informed the City of Newark that it was unable to assure the City's residents that their health was fully protected when drinking the City's water and believed that it was essential for the City to advise residents with known or suspected lead service lines to use bottled water for drinking and cooking. HUD's Offices of Multifamily Housing Programs and Public and Indian Housing prepared a joint memorandum regarding requirements for addressing lead contaminated water in multifamily housing, Housing Choice Voucher Program, and public housing program units located in the City, similar to the joint memorandum issued in response to the water crisis in the City of Flint and Genesee County, MI.<sup>14</sup> On October 24, 2019, the senior advisor in HUD's

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<sup>13</sup> In 2017, HUD began a wholesale reexamination of its uniform physical condition standards inspection process and is currently modernizing its physical housing inspection model through the NSPIRE demonstration program. The NSPIRE demonstration program will assess all aspects of the physical inspection process, including the evaluation of physical inspection data and a new scoring model, to ensure housing is decent, safe, and sanitary.

<sup>14</sup> The joint memorandum from HUD's Deputy Assistant Secretary for Multifamily Housing and Deputy Assistant Secretary for Public Housing and Voucher Programs to the Director of HUD's Newark Office of Public Housing and the Asset Management Division Director in HUD's Office of Multifamily Housing Programs' New York

Office of Multifamily Asset Management and Portfolio Oversight sent the joint memorandum to HUD’s Office of Multifamily Housing Programs’ New York regional center. If HUD had sufficient policies, procedures, and controls that addressed households living in multifamily housing units having a sufficient supply of safe drinking water, HUD would not have to prepare joint memorandums regarding requirements for addressing lead contaminated water for specific communities and the requirements would be readily available when needed.

The Environmental Protection Agency has not set a maximum contaminant level for lead. A senior advisor to the Director of Lead Hazard Control and Healthy Homes said that because the Agency had not set a maximum contaminant level for lead, it would be inappropriate for HUD to set a maximum contaminant level for lead. Further, the Director of HUD’s Lead Hazard Control and Healthy Homes’ Program and Regulatory Support Division said that because the Agency’s maximum contaminant level goal for lead is zero, it would be difficult for HUD to set a maximum contaminant level for lead greater than zero. Therefore, HUD’s position is that it would not be appropriate or practical to require testing for lead in the water of multifamily housing units.

**Owners and Agents Not Required To Act Regarding the Potential for Lead in Water**

We also reviewed 10 active multifamily housing properties located in the largest cities served by the selected public water systems. The following table shows for the 10 multifamily housing properties, the public water system that served each property and the location and name of the properties.

Public water system	Location	Multifamily property
Providence Water	Providence, RI	Grandview Second East Long Pond Apartments
City of Newark’s Department of Water and Sewer Utilities	Newark, NJ	Project Live XIII Norfolk Square Apartments
Pittsburgh Water and Sewer Authority	Pittsburgh, PA	Larimer Phase I Parkview Manor
Green Bay Water Utility	Green Bay, WI	Meadows North Mirmar Apartments
Portland Water Bureau	Portland, OR	Upshur House The Saint Francis

We interviewed staff members from HUD’s Office of Multifamily Housing Programs’ Minneapolis, Boston, and Baltimore regional satellite offices and New York and San Francisco regional centers that had oversight responsibilities for the selected multifamily housing properties. Staff members from four of the five field Offices were not aware of elevated levels of lead in the water in the communities served by the public water systems before being notified of our audit. Further, none of the field Offices requested that the owners or management agents

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regional center was signed only by HUD’s Deputy Assistant Secretary for Multifamily Housing and was not dated.

of the selected multifamily housing properties take action regarding the potential for lead in the water of their multifamily housing units.<sup>15</sup>

We also interviewed staff members of the owners and management agents of the selected multifamily housing properties to determine whether they had taken actions to address the potential for lead in water. Staff members associated with 6 of the 10 properties said that they were aware of elevated levels of lead in the water in the areas where the properties were located. However, staff members associated with only two properties informed their tenants of resources available from the public water system or installed water filters in the units.

A property manager for Oakland Planning and Development Corporation, the owner and management agent of Parkview Manor, said that the Corporation provided documentation to its tenants that notified them of free water testing and filters available from the Pittsburgh Water and Sewer Authority. Further, the property manager said that some of the Corporation's tenants had their water tested, but the Pittsburgh Water and Sewer Authority informed the Corporation only that the levels of lead in the water of the units tested were below 12 parts per billion.<sup>16</sup> However, had the Pittsburgh Water and Sewer Authority informed the Corporation of levels of lead in excess of 12 parts per billion, the Corporation would likely have taken steps to remediate lead in the water of the applicable units.

Further, the executive director of Project Live, Inc., the owner and management agent of Project Live XIII, said that after learning of elevated levels of lead in the Newark, NJ, area, Project Live, Inc., installed water filters on the kitchen sink tap in each unit at Project Live XIII. The executive director said that the water filters were installed as a preventive measure and that the water had not been tested for lead.

### **Households at Risk of Living in Multifamily Units With Lead in the Drinking Water**

As previously stated, based on data from HUD's Integrated Real Estate Management System, there were more than 400 multifamily housing properties with more than 36,000 units located in the largest cities served by the selected public water systems. Therefore, HUD lacked assurance that households lived in multifamily housing units that had a sufficient supply of safe drinking water.

### **Conclusion**

HUD relied on the Environmental Protection Agency to ensure that public water systems provided water that was safe to drink. As a result, HUD lacked assurance that households lived in multifamily housing units that had a sufficient supply of safe drinking water.

### **Recommendations**

We recommend that the Director of Multifamily Asset Management and Portfolio Oversight

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<sup>15</sup> Note that HUD's Office of Multifamily Housing Programs did not have policies, procedures, or controls that regional satellite office or center staff members could refer to in order to require a multifamily property owner or agent to take action regarding the potential for lead in the water of its multifamily housing units.

<sup>16</sup> The property manager was not aware of the exact number of units tested.

- 1A. Develop and implement an action plan that includes sufficient policies, procedures, and controls that address households living in multifamily housing units having a sufficient supply of safe drinking water. Such policies, procedures, and controls should include but not be limited to (1) developing and implementing internal procedures to be notified, and share with the owners and management agents of the multifamily housing properties, when the public water systems' water exceeds the Environmental Protection Agency's lead action level and (2) revising HUD's applicable regulations, providing guidance to the owners and management agents, and taking appropriate actions so that households living in multifamily housing units have a sufficient supply of safe drinking water.

# Scope and Methodology

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We performed our audit work from February 2019 through February 2020 at HUD's Chicago regional office located at 77 West Jackson Boulevard, Chicago, IL, and HUD's Detroit field office located at 477 Michigan Avenue, Detroit, MI. The audit covered the period January 2016 through January 2019 but was expanded through February 2020 to determine whether the public water systems could provide documentation showing that the water at multifamily properties had been tested for lead and HUD's Office of Multifamily Housing Programs had implemented or planned to implement policies, procedures, and controls to ensure that households living in multifamily housing units had a sufficient supply of safe drinking water.

To accomplish our objective, we reviewed

- Applicable laws;
- HUD's regulations at 24 CFR (Code of Federal Regulations) Parts 5, 35, and 200;
- The U.S. Environmental Protection Agency's national primary drinking water regulations located at 40 CFR Part 141;
- HUD's Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, 2012 edition;
- HUD Handbook 4910.1, 1994 edition;
- Data from HUD's Integrated Real Estate Management System and Tenant Rental Assistance Certification System, and the Environmental Protection Agency's Safe Drinking Water Information System Federal Reporting Services System; and
- The results of water tests for lead and public water systems' annual water quality reports.

In addition, we interviewed HUD's staff, staff of owners and management agents of multifamily properties, and employees of the Environmental Protection Agency's Office of Ground Water and Drinking Water and Centers for Disease Control and Prevention.

Based on data in the Environmental Protection Agency's Safe Drinking Water Information System Federal Reporting Services System, we selected a nonstatistical sample of the following five public water systems that reported levels of lead above the Agency's action level of 15 parts per billion: (1) Providence Water, (2) City of Newark's Department of Water and Sewer Utilities, (3) Pittsburgh Water and Sewer Authority, (4) Green Bay Water Utility, and (5) Portland Water Bureau. We reviewed the public water systems' annual water quality reports. We used a nonstatistical sample because we knew enough about the population to identify a relatively small number of items of interest that were likely to be misstated or otherwise have a high risk and we were not projecting the results to the population that we did not review. The following table shows the location of the public water systems and the 90<sup>th</sup> percentile value of lead detected that the public water systems reported for 2015 through 2018 in their annual water

quality reports (the 90<sup>th</sup> percentile values highlighted in gray represent the years in which the public water systems reported in their annual water quality reports levels of lead above the action level of 15 parts per billion).<sup>17</sup>

Public water system	Location	2015	2016	2017	2018
Providence Water	Providence, RI	15.0	16.0	17.0	22.3
City of Newark’s Department of Water and Sewer Utilities <sup>18</sup>	Newark, NJ	10.0	10.0	26.7	47.9
Pittsburgh Water and Sewer Authority	Pittsburgh, PA	14.8	18.0	21.0	20.0
Green Bay Water Utility <sup>19</sup>	Green Bay, WI	27.0	18.0	16.0	11.0
Portland Water Bureau	Portland, OR	14.0	17.4	17.0	11.9

Further, the websites for Providence Water, the City of Newark, the Pittsburgh Water and Sewer Authority, the Green Bay Water Utility, and the Portland Water Bureau generally included a press release, public notice, brochure, or newsletter which included the risks of lead in water and steps customers could take to reduce their exposure.

We then selected for review a nonstatistical sample of 10 active multifamily housing properties located in the largest cities served by the selected public water systems. We used a nonstatistical sample because we expected it to be representative of the population and we were not projecting the results to the properties that we did not review.

We relied in part on data in the Environmental Protection Agency’s Safe Drinking Water Information System Federal Reporting Services System to select a sample of public water systems that reported levels of lead above the Agency’s action level of 15 parts per billion. Although we did not perform a detailed assessment of the reliability of the data, we found the data to be sufficient for our purpose by comparing the selected public water systems’ data in the Agency’s System to data in the public water systems’ annual water quality reports.

We also relied in part on data from HUD’s Integrated Real Estate Management System to determine the number of active multifamily housing properties and units located in Providence, RI, Newark, NJ, Pittsburgh, PA, Green Bay, WI, and Portland, OR (the largest cities served by the selected public water systems). Although we did not perform a detailed assessment of the reliability of the data, we found the data to be sufficient for our purpose by comparing the property name and address from HUD’s System for our sample of 10 active multifamily housing properties to statements made by multifamily property owners and management agents associated with the 10 properties. Further, because we used the unit data only for information

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<sup>17</sup> If a public water system reported in its annual water quality report on more than one period of testing for a year, we included only the 90<sup>th</sup> percentile value of lead detected for the most recent period of testing for that year.

<sup>18</sup> The 90<sup>th</sup> percentile value of lead detected that the City of Newark’s Department of Water and Sewer Utilities reported for 2016 was based on testing done in 2015.

<sup>19</sup> The 90<sup>th</sup> percentile value of lead detected that the Green Bay Water Utility reported for 2015 was based on testing done in 2012.

and our recommendations are not associated with specific properties or units, we believe that the data are adequately reliable for our purposes.

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 objective.



# Internal Controls

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Internal control is a process adopted by those charged with governance and management, designed to provide reasonable assurance about the achievement of the organization's mission, goals, and objectives with regard to

- effectiveness and efficiency of operations,
- relevance and reliability of information, and
- compliance with applicable laws and regulations.

Internal controls comprise the plans, policies, methods, and procedures used to meet the organization's mission, goals, and objectives. Internal controls include the processes and procedures for planning, organizing, directing, and controlling program operations as well as the systems for measuring, reporting, and monitoring program performance.

## Relevant Internal Controls

We determined that the following internal controls were relevant to our audit objective:

- Effectiveness and efficiency of operations – Policies and procedures that management has implemented to reasonably ensure that a program meets its objectives.
- Relevance and reliability of information – Policies and procedures that management has implemented to reasonably ensure that operational and financial information used for decision making and reporting externally is relevant, reliable, and fairly disclosed in reports.
- Compliance with applicable laws and regulations – Policies and procedures that management has implemented to reasonably ensure that resource use is consistent with laws and regulations.

We assessed the relevant controls identified above.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, the reasonable opportunity to prevent, detect, or correct (1) impairments to effectiveness or efficiency of operations, (2) misstatements in financial or performance information, or (3) violations of laws and regulations on a timely basis.

## Significant Deficiency

Based on our review, we believe that the following item is a significant deficiency:

- HUD's Office of Multifamily Housing Programs did not have sufficient policies, procedures, and controls to ensure that households living in multifamily housing units had a sufficient supply of safe drinking water because HUD relied on the Environmental Protection Agency to ensure that public water systems provided water that was safe to drink (finding).

# Appendixes

## Appendix A

### Auditee Comments and OIG's Evaluation


#### Ref to OIG Evaluation

#### Auditee Comments

Comment 1

Comment 2

Comment 2



OFFICE OF HOUSING

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT  
WASHINGTON, DC 20410-8000

June 25, 2020

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

FROM: Tobias J. Halliday, Director of Multifamily Asset Management and Portfolio Oversight, HTG

SUBJECT: Response to Draft Report, "HUD lacked assurance that households lived in multifamily housing units had a sufficient supply of safe drinking water"

Thank you for the opportunity provided on June 19, 2020 to review and discuss the subject draft Office of Inspector General (OIG) audit memorandum, and for your allowance of additional time for our response. We have reviewed your draft report and wish to convey that we take the issue of exposure to lead in water seriously.

As discussed, it is the responsibility of the U.S. Environmental Protection Agency (EPA) to ensure that municipal water utilities provide safe water for affected residents. EPA's authority to monitor drinking water and achieve compliance with lead safety standards is under the Safe Drinking Water Act, and more specifically, the Lead and Copper Rule. Municipal water authorities are required by EPA to monitor water safety through system-wide testing and to alert the public when exceedances require controls. This process is overseen by EPA.

Because of EPA's authority and oversight of public water utilities, Recommendation 1A's inclusion of a requirement for the Office of Multifamily Housing (MF) to collect information from public water systems and to notify public housing agencies of lead exceedances would be nearly impossible for MF to achieve. There is no statute or rule that compels local water utilities to report to HUD or its field offices. This data collection would be a new burden on local agencies not supported in regulation. Accordingly, MF requests that this portion of the recommendation be removed. As an alternative, the OIG could include a recommendation that MF continue to work with HUD's Office of Lead Hazard Control and Healthy Homes (OLHCHH) on lead in water issues, and to develop internal guidance for response when MF becomes aware of water exceedances. Proposed revisions to the Recommendation are provided below:

**Recommendation**

1A. Develop and implement an action plan that includes sufficient policies, procedures, and controls that address households living in assisted housing units having a sufficient supply of safe drinking water. The action plan should include but not be limited to (1) revising HUD's applicable regulations through the NSPIRE rulemaking and providing guidance, based on HUD's authority and capacity, to Multifamily housing landlords on taking appropriate actions when their assisted units are identified as being located within the portion of a public water system's service area that exceeds the Environmental Protection Agency's lead action level, and (2)

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**Ref to OIG  
Evaluation**

Comment 2

Comment 3

continuing to work with the Office of Lead Hazard Control and Healthy Homes on lead in water issues and developing internal guidance on notifying owners upon HUD's being informed of their impacted properties and the proper actions they should take to address this issue.

As the OIG noted, HUD is undertaking a demonstration and rulemaking effort to align its housing standards through "NSPIRE", or the National Standards for the Physical Inspection of Real Estate. These standards, once finalized, will cover public housing, the HCV program and project-based rental assistance. As noted by the OIG, HUD plans to seek public comment on proposed regulatory requirements for water in assisted housing. Because this rule is not yet public, and in consultation with the Office of General Counsel, MF requests that the OIG amend the report's language to read:

However, HUD is drafting a proposed rule for the implementation of the National Standards for the Physical Inspection of Real Estate (NSPIRE) in which HUD plans to include a description of a water building system and seek comments on a revision to its existing regulations for water safety.

We appreciate the work of your staff to seek input from MF staff and other experts on this report and its recommendation. We look forward to working with the OIG to establish a management decision and target completion dates to implement this recommendation.

## OIG Evaluation of Auditee Comments

Comment 1 HUD stated that it is the Environmental Protection Agency's responsibility to ensure that municipal water utilities provide safe water. Further, the Agency requires municipal water authorities to monitor water safety through system-wide testing and to alert the public when there are exceedances.

We agree with HUD's comment. However, the Agency's action level of 15 parts per billion for lead is not a health-based standard or a standard for establishing a safe level of lead in a home. It is a measure of the effectiveness of the corrosion control treatment in water systems. Therefore, exposure to lead from water may occur even though the action level is not exceeded. In addition, site specific remediation strategies such as replacement of customer owned lead service lines and plumbing components is typically the responsibility of the homeowner.

Comment 2 HUD stated that because the Environmental Protection Agency is responsible for the oversight of public water utilities, it is not practical for its Office of Multifamily Housing Programs to collect information from public water systems and notify public housing agencies of lead exceedances.

HUD proposed the second sentence of the recommendation be revised to the action plan should include but not be limited to (1) revising HUD's applicable regulations through the NSPIRE rulemaking and providing guidance, based on its authority and capacity, to multifamily housing landlords on appropriate actions when their assisted units are identified as being located within the portion of a public water system's service area that exceeds the Agency's lead action level, and (2) continuing to work with HUD's Office of Lead Hazard Control and Healthy Homes on lead in water issues and developing internal guidance on notifying owners upon being informed of their impacted properties and the proper actions they should take to address this issue.

We did not recommend that the Office of Multifamily Housing Programs notify public housing agencies of lead exceedances. We recommended that the Director of Multifamily Asset Management and Portfolio Oversight work with the public water systems to notify the applicable HUD field Offices of Multifamily Housing Programs when the public water systems water exceeds the Agency's lead action level. Therefore, HUD could have then shared this information with owners and management agents of multifamily housing properties.

Staff members from four of HUD's five field Offices of Multifamily Housing Programs that had oversight responsibilities for the selected multifamily housing properties were not aware of elevated levels of lead in the water in the communities served by the public water systems before being notified of our audit. Further, staff members associated with 4 of the 10 properties said that they were not aware of elevated levels of lead in the water in the areas where the properties were located. Therefore, we believe that HUD should have internal procedures to be notified, and share with owners and management agents of

multifamily housing properties, when the public water systems' water exceeds the Agency's lead action level. This does not require HUD to obtain information directly from the public water systems. HUD could (1) request that the Agency inform HUD when the Agency becomes aware that a public water system's water exceeds the Agency's lead action level or (2) periodically search the Agency's Safe Drinking Water Information System Federal Reporting Services System for public water systems that reported levels of lead above the Agency's action level.

In addition, we believe that revisions to HUD's applicable regulations and guidance to owners and management agents of multifamily housing properties should not be limited to the appropriate actions to take when multifamily housing units are identified as being located within the portion of a public water system's service area that exceeds the Agency's lead action level. Revisions to HUD's applicable regulations and guidance should also include but not be limited to the appropriate actions to take when lead is detected in the water of a multifamily housing unit.

We did not revise the second sentence of the recommendation as HUD proposed. However, we revised the sentence to state that such policies, procedures, and controls should include but not be limited to (1) developing *and implementing* internal procedures to be notified, and share with owners and management agents of multifamily housing properties, when the public water systems' water exceeds the Environmental Protection Agency's lead action level and (2) revising HUD's applicable regulations, providing guidance to owners and management agents, and taking appropriate actions so that households living in multifamily housing units have a sufficient supply of safe drinking water.

We look forward to working with HUD in the audit resolution process to resolve the recommendation.

Comment 3 HUD stated that once NSPIRE is finalized, it would apply to public housing, the Housing Choice Voucher Program, and project-based rental assistance units. Further, HUD requested that we revise the report to state that HUD is drafting a proposed rule for the implementation of NSPIRE in which HUD plans to include a description of a water building system and seek comments on a revision to its existing regulations for water safety.

However, we noted that NSPIRE would also apply to multifamily properties that are FHA-insured or subsidized through HUD's multifamily housing programs. We followed up with HUD and it agreed that its response should have included the multifamily properties.

We revised the report to state that HUD is drafting a proposed rule for the implementation of NSPIRE in which HUD plans to include a description of a water building system. Through the draft proposed rule, HUD plans to also seek comments on a revision to its existing regulations for water safety.

## Appendix B

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### Applicable Requirements

HUD's regulations at 24 CFR 5.703(c) state that each building's domestic water; electrical system; elevators; emergency power; fire protection; heating, ventilation, and cooling; and sanitary system must be free of health and safety hazards, functionally adequate, operable, and in good repair. Section 5.703(d)(1) states that each dwelling unit within a building must be structurally sound, habitable, and in good repair. All areas and aspects of the dwelling unit must be free of health and safety hazards, functionally adequate, operable, and in good repair. Section 5.703(d)(2) states that when applicable, a dwelling unit must have hot and cold running water, including an adequate source of potable water.

HUD's regulations at 24 CFR 200.925 state that all housing constructed under HUD mortgage insurance and low-rent public housing programs must meet or exceed HUD minimum property standards. Section 200.925a(a) states that multifamily or care-type properties must comply with the minimum property standards contained in the handbook identified in 24 CFR 200.929(b)(2).

HUD's regulations at 24 CFR 200.929(b)(2) state that the minimum property standards have been published as Minimum Property Standards for Housing 4910.1, 1994 edition. This volume applies to buildings and sites designed and used for normal multifamily occupancy, including both unsubsidized and subsidized insured housing.

Section 615-2.1 of HUD Handbook 4910.1, 1994 edition, states that each living unit must be provided with a continuing and sufficient supply of safe water under adequate pressure and of appropriate quality for all household uses and one that will not impair the functioning or durability of the plumbing system or attachments.