MEMORANDUM
February 14, 2021

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Please see the attached final report on our evaluation of the U.S. Department of Housing and Urban Development’s (HUD) efforts to identify and mitigate health risks to residents living in HUD-funded properties on or near contaminated sites. It contains two findings and four recommendations.

In the response to our draft report, we requested comments from the Offices of Public and Indian Housing (PIH), Multifamily Housing Programs (Multifamily), and Community Planning and Development (CPD). All three offices provided responses. These responses, along with our comments, are included in our report. Based on the responses, we consider recommendations 1, 2, 3, and 4 “unresolved-open.” We will contact PIH and Multifamily within 90 days to begin discussing your proposed management decisions.

I appreciate the assistance you, your staffs, and staff throughout HUD provided throughout the evaluation. Please contact Director Paul Bergstrand at 202-440-1275 if you have any questions.

Attachment

cc  
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Contaminated Sites Pose Potential Health Risks to Residents at HUD-Funded Properties
Executive Summary
Contaminated Sites Pose Potential Health Risks to Residents at HUD-Funded Properties

Report Number: 2019-OE-0003
February 14, 2021

Why We Did This Evaluation

We initiated this evaluation due to the lead poisoning of residents in an East Chicago, IN, public housing complex and the possibility that residents in thousands of U.S. Department of Housing and Urban Development (HUD)-funded properties across the Nation face health risks because they are living on or near other contaminated sites.

Congress has passed multiple statutes that require HUD housing to be decent, safe, sanitary, and in good repair. Regulation also states, “…that all property proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gasses, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property.” HUD uses environmental reviews to help ensure that this policy is followed.

Without accurate and complete environmental reviews, potential contaminants that could endanger residents’ health are less likely to be identified or mitigated.

Results of Evaluation

The West Calumet Housing Complex (WCHC), located in East Chicago, IN, was a public housing development that opened in 1972 on top of a former lead smelting plant. HUD and other agencies missed multiple opportunities to identify site contamination at WCHC. As a result, WCHC residents continued living in unsafe conditions for decades, and inadequate oversight led to the lead poisoning of children in WCHC. Between 2005 and 2015, a child living in WCHC had nearly a three times greater chance of having elevated blood lead levels than children living in other areas of East Chicago.

HUD has partnered with and relied on the Environmental Protection Agency (EPA) to identify contaminated HUD-funded properties and develop a mitigation strategy for those properties. In 2016, EPA provided HUD a list of HUD-funded properties on or near contaminated sites. Since then, EPA and HUD have updated this list. While HUD has taken steps to improve communication with EPA, it can do more with the information it receives to understand how contaminated sites might impact HUD-funded properties.

As a result of HUD’s approach to identifying contaminated sites, residents of those contaminated properties might experience prolonged exposure to potential contaminants. HUD may be unaware of other situations like WCHC. Therefore, HUD needs to take more action and develop a strategy to identify and mitigate those situations.

Recommendations

We offer four recommendations to help HUD (1) develop and implement strategies to research properties and determine whether site contamination should be considered in future environmental reviews and then (2) monitor those reviews.
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Introduction

Objectives

We evaluated the circumstances that resulted in the lead poisoning of residents at the West Calumet Housing Complex (WCHC) and the U.S. Department of Housing and Urban Development’s (HUD) actions to address potential contamination at other properties across the Nation. Our objectives were to determine (1) the circumstances surrounding the resident lead poisoning at WCHC, (2) what steps HUD has taken to determine the potential health risks posed to residents in HUD-funded properties1 by Superfund and non-Superfund sites2 contaminated with heavy metals,3 and (3) what HUD has done to mitigate these potential health risks.

Background

WCHC Was Built on the Site of a Former Lead Smelting Plant

WCHC, located in East Chicago, IN, was a public housing development that opened in 1972. It consisted of 107 residential buildings with a total of 346 units that were administered by the East Chicago Housing Authority (ECHA). WCHC was built on the former site of Anaconda Lead Products and the International Lead Refining Company and downwind of the USS Lead facility (see figure 1), all part of the USS Lead Superfund site. Anaconda Lead Products manufactured white lead,4 while the International Lead Refining Company was a metal refining facility, which included white lead storage areas and a lead refinery.

The USS Lead facility was located south of the future housing complex and operated as a copper smelter plant from 1906 to 1920. In 1920, the facility became a lead refinery and remained so until about 1972 when it was converted to a secondary smelter. The waste materials produced by USS Lead included dust containing lead, which was found downwind of the plant. As a result of operations of the facilities, the site’s soil was contaminated with lead.

In 2009, the Environmental Protection Agency (EPA) put the USS Lead site on the National Priorities List (NPL) for contamination cleanup. As of 2016, approximately 1,100 residents, about 680 of whom were children, resided in WCHC. On August 3, 2016, HUD officially ordered the relocation of WCHC’s residents due to lead contamination. The City of East Chicago began demolition of WCHC in 2018 and completed it by June 2019.

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1 HUD-funded properties are properties for which HUD obligates funds.
2 Superfund sites are sites listed on the NPL, a list of sites that are national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. For the purposes of this report, we refer to contaminated sites that are not on the NPL as non-Superfund. Both are described further in the Background section.
3 The second objective included “other pollutants” in the study design we shared with HUD. During the course of our evaluation, we removed other site contamination from the scope to focus on heavy metal contamination.
4 White lead was formerly used as an ingredient for lead paint. However, white lead caused lead poisoning, and the United States banned its use in paint in 1978.
Human Health Impacts of Lead Are Irreversible

Lead is one of the most commonly found hazards at Superfund sites. According to the U.S. Department of Health and Human Services’ Agency for Toxic Substances and Disease Registry (ATSDR), “lead may cause irreversible neurological damage, renal disease, cardiovascular effects, and reproductive toxicity.” Elevated blood lead levels can cause a coma, convulsions, or death.\(^5\) Lead exposure occurs when a person eats, drinks, or breathes lead. Children are more likely to be exposed than adults because children more commonly place things into their mouths, such as contaminated dust and soils from around their homes. Children also face the most danger from lead exposure because their bodies are still growing. Even low levels of lead in

\(^5\) Centers for Disease Control and Prevention, National Biomonitoring Program [Fact sheet], July 12, 2013
blood can impact children’s ability to pay attention, academic achievement, and intelligence quotient. The Centers for Disease Control and Prevention reported that there is no safe blood lead level in people. No cure for lead poisoning exists, which is why it is important to prevent exposure to lead, especially among children.

**Applicable Laws and HUD Guidance**

**HUD’s Statutory Obligations**

Part of HUD’s mission is to provide quality, affordable homes for all. Additionally, HUD requires that HUD-funded properties be decent, safe, sanitary, and in good repair. The following list of laws shows how Congress has reinforced the role of HUD and its precursor agency in providing such housing.

- **United States Housing Act of 1937:** Congress passed the United States Housing Act of 1937, which established the United States Housing Authority (a precursor agency to HUD) and was the beginning of public housing. One of the purposes of the 1937 Act was to provide decent, safe, and sanitary housing.
- **Housing Act of 1949:** Congress declared that the general welfare, security, and living standards of the people of the United States required sufficient housing and community development and the elimination of substandard and other inadequate housing through the clearance of slums and blighted areas. The goal of the Housing Act of 1949 was to ensure a decent home and suitable living environment for every American family.
- **Housing and Community Development Act of 1974:** Congress found and declared that the United States’ cities, towns, and smaller urban communities faced critical social, economic, and environmental problems and that the well-being of its citizens required sustained action by Federal, State, and local governments to improve the living environment of low- and moderate-income families. The primary objective of Title I of the Housing and Community Development Act of 1974 was to provide decent housing, a suitable living environment, and economic opportunities for persons of low and moderate income.

**Federal Environmental Laws and Requirements**

In January 1970, Congress passed the National Environmental Policy Act of 1969 (NEPA). The objective of NEPA was, in part, to stimulate the health and welfare of the people. It also established a national policy that would encourage harmony between people and their environment and promoted efforts to prevent or eliminate damage to the environment. To carry out NEPA, Congress directed the continuing responsibility of the Federal Government to improve and coordinate Federal plans, functions, programs, and resources so that the Nation could attain the widest range of beneficial uses without risk to health or safety.

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6 24 CFR (Code of Federal Regulations) 5.703
7 Public Law 412-75: The United States Housing Act of 1937. (50 Stat. 888; date: 09/01/1937)
To further NEPA, Executive Order 11514, issued March 5, 1970, required the heads of Federal agencies to continually monitor, evaluate, and control their agencies’ activities so as to protect and enhance the quality of the environment. In addition, the Executive Order required Federal agencies to “review their agencies’ statutory authority, administrative regulations, policies, and procedures, including those related to loans, grants, contracts, leases, licenses, or permits to identify any deficiencies or inconsistencies that prohibit or limit full compliance with the purposes and provisions of NEPA.”

**HUD’s Implementation of Regulations and Policies**

HUD responded to NEPA and Executive Order 11514 by developing two environmental review regulations. These are 24 CFR (Code of Federal Regulations) parts 50 and 58. Both regulations state that it is HUD policy that “[a]ll property proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gasses, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property.” They also state that “particular attention should be given to any proposed site on or in the general proximity of such areas as dumps, landfills, industrial sites, or other locations that contain hazardous wastes.”

HUD’s Office of Environment and Energy (OEE), within the Office of Community Planning and Development (CPD), has overall departmental responsibility for policies and procedures that implement NEPA and the related laws and authorities known as compliance factors.

- Part 50 directs HUD to carry out the policies of NEPA and address other compliance factors. This responsibility includes independent evaluation of the environmental issues, the scope and content of the environmental compliance finding, and making the environmental determination. The regulation also places responsibility on all Assistant Secretaries, the General Counsel, and the HUD approving official to assure that environmental requirements are implemented for each of their program areas.
- Part 58 allows State and local governments to assume HUD’s responsibility for environmental reviews, thereby becoming the responsible entity. According to regulations, the responsible entity for public housing agencies (PHA) is the unit of general local government within which the project is located that exercises land use responsibility. The responsible entity assumes all actions of the environmental review process, to include the decision making and action that would apply to HUD under the specified laws and authorities. Under part 58, HUD’s environmental responsibilities consist of monitoring compliance of the environmental review, training, and technical assistance to ensure environmental compliance.

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11 37 Federal Register 22673 (October 20, 1972)
12 40 Federal Register 1392 (January 7, 1975)
13 The regulations at 24 CFR 50.4, 58.5, and 58.6 define the related Federal laws and authorities that require compliance. These compliance factors include historic properties, floodplain management, wetland protection, coastal zone management, sole-source aquifers, endangered species, wild and scenic rivers, air quality, farmlands protection, noise control and abatement, explosives and flammable operations, airport hazards, contamination and toxic substances, environmental justice, flood zones and flood insurance, the Coastal Barrier Resource Act, and runway clear zones.
14 24 CFR 58.2(a)(7)(ii)(B)
Regulations in 24 CFR parts 50 and 58 require completion of an environmental review before HUD can commit funds for a project or before those funds can be spent. Environmental review requirements apply to all HUD-funded activities—from operating and capital funds to project-based vouchers. HUD has five levels of environmental reviews. The level of the environmental review required depends on the scope of the project. For example, property inspections would be exempt from the majority of the requirements under 24 CFR part 58, while repair, reconstruction, and rehabilitation activities require a review that addresses all 17 compliance factors.

Once the responsible entity has determined that the environmental review required for a project must address the site contamination compliance factor, the responsible entity must consider the level of due diligence needed. Full due diligence reviews require a search of government records, an evaluation of historic uses, and a site visit. Full due diligence reviews are commonly fulfilled through a phase I environmental site assessment, which also requires interviews with past and present owners, operators, and occupants of the property and a visual inspection of the facility and adjoining properties under the American Society for Testing and Materials phase I standards. Under parts 50 and 58, multifamily and nonresidential projects are required to complete this level of due diligence. Single-family residential projects may complete a limited due diligence review that does not require an evaluation of historic uses. If either the limited or full due diligence review suggests that there are no existing or potential sources of contamination, the site contamination compliance factor is complete. The responsible entity would then document results as part of the environmental review record. If either due diligence review does not rule out potential site contamination, the responsible entity would need to evaluate further.

HUD’s Authority To Take Action if It Suspects a Property Is Contaminated

As described above, according to the parts 50 and 58 regulations, “[a]ll property proposed for use in HUD programs must be free of hazardous materials, contamination, toxic chemicals and gasses, and radioactive substances when a hazard could affect the health and safety of occupants or conflict with the intended use of the property.” In addition to these regulations, HUD has an ongoing obligation to take action if it suspects a property is contaminated. This obligation is based on

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15 PIH considers an environmental review for a specific project valid for up to 5 years as long as the project scope or environmental conditions remain unchanged.
16 The five levels of environmental reviews are (1) exempt: includes activities or work that does not require physical changes to a property and does not disturb the physical environment; (2) categorically excluded from NEPA and not subject to the Federal law and authorities referenced at 24 CFR 58.5 (“categorically excluded not subject to”): includes activities that do not alter physical conditions; (3) categorically excluded from NEPA but subject to the Federal law and authorities referenced at 24 CFR 58.5 (“categorically excluded subject to”): activities that may result in physical disturbance to the environment; (4) environmental assessment: new construction, major renovations, or activities not covered in the above three levels of review; and (5) environmental impact statement: major developments with potentially significant impacts on the human environment or the project exceeds HUD’s threshold.
17 Single-family housing projects require limited due diligence, while projects related to land acquisition, new construction or substantial rehabilitation, multifamily housing, and nonresidential properties require full site contamination due diligence.
18 24 CFR 50.3(i)(1) and 24 CFR 58(i)(2)(i)
• HUD’s ongoing obligation to provide decent, safe, and sanitary housing established in HUD statutes and regulations, described above;
• The annual contributions contract or regulatory agreement that HUD has authority to monitor and enforce; and
• HUD’s environmental justice obligations, outlined in Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.19

EPA’s Authority To Monitor and Clean Up Contaminated Sites

According to EPA, “[t]housands of contaminated sites exist nationally due to hazardous waste being dumped, left out in the open, or otherwise improperly managed. These sites include manufacturing facilities, processing plants, landfills, and mining sites.” To improve public safety, Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 1980. CERCLA is informally called “Superfund.” Generally, Superfund sites are the most contaminated sites in the country and can present significant risks to human health or the environment, depending on the type of contamination. According to EPA’s website, CERCLA “forces the parties responsible for the contamination to either perform the cleanups or reimburse the government for EPA-led cleanup work. When there is no viable responsible party, Superfund gives EPA the funds and authority to clean up contaminated sites.” EPA maintains the NPL, which is primarily a guide EPA uses to determine which sites warrant further investigation and possible cleanup. EPA removes a Superfund site from the NPL when it has been appropriately mitigated and EPA determines that no further action is required to protect human health or the environment.

Scope and Methodology

We completed this evaluation under the authority of the Inspector General Act of 1978 as amended and in accordance with the Quality Standards for Inspection and Evaluation issued by the Council of the Inspectors General on Integrity and Efficiency (January 2012).

Scope

We performed fieldwork for this evaluation between April 2019 and February 2020. This evaluation covered operations within three HUD program offices – the Office of Housing’s Office of Multifamily Housing Programs (Multifamily), the Office of Public and Indian Housing (PIH), and CPD.

Methodology

To address our objectives, we reviewed relevant statutes, regulations, and other documentation.

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19 Executive Order 12898 created a multiagency Federal work group dedicated to promoting environmental justice. To implement the Executive Order, each Federal agency was to incorporate “environmental justice as part of its mission by identifying and addressing, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority population and low-income populations in the United States and its territories.”
We conducted interviews with program environmental clearance officers, senior environmental staff, and program officers considered to be the subject-matter experts best positioned to speak about WCHC, the environmental review processes, or HUD’s collaboration with EPA. We also interviewed staff from the City of East Chicago and ECHA. For a list of people interviewed, see appendix A.

To determine the issues surrounding the contamination of WCHC, we reviewed its environmental review records (between 2003 and 2016) that we received from OEE and ECHA. We reviewed documentation received from EPA related to contaminated sites and the testing of blood lead levels as part of our efforts to determine the steps HUD has taken to determine the potential health risks posed to residents near contaminated sites and what HUD has done to mitigate these potential health risks. In addition, we reviewed documentation received from HUD related to the memorandum of understanding (MOU) between HUD and EPA. We also reviewed internal HUD protocols on environmental compliance activities and relevant agency and organizational reports.

We used this information to determine (1) whether the WCHC environmental reviews were completed in compliance with the regulations, (2) the roles HUD and EPA had in relation to identifying HUD-funded properties that had contamination concerns, and (3) what actions HUD has taken to identify and mitigate the exposure that residents of HUD-funded properties on or near contaminated sites may face.

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20 We asked for historical environmental review records from the Director of Public Housing in Indianapolis, ECHA, and OEE. The earliest environmental review record we received was from 2003.
Findings

HUD and Other Agencies Missed Opportunities To Identify Site Contamination at WCHC

PIH, as well as other Federal, State, and City of East Chicago authorities, missed opportunities to identify site contamination and notify WCHC residents of those hazards in a timely manner. The missed opportunities placed the residents’ health and safety at risk and contributed to the lead poisoning of children living in WCHC.

The City acquired the WCHC property in 1968, after the lead smelting and refining facility operated by Anaconda Lead Products and International Lead Refining Company ceased operations. That same year, before the passage of the 1970 NEPA, the City received funds from HUD to construct the public housing development, WCHC.

In 1972, WCHC was completed and opened to residents. Because construction of WCHC occurred before environmental laws and regulations were implemented, an initial environmental review was not conducted. However, in the years that followed, government records indicated that lead contamination existed at WCHC. HUD would have become aware of lead contamination at WCHC sooner if HUD and the City had properly conducted environmental reviews or if better communication among Federal, State, and City authorities had occurred.

See figure 2 for a timeline of the missed opportunities by Federal and State authorities to identify lead exposure at WCHC.
Figure 2 - Missed opportunities by Federal and State authorities to identify lead exposure at WCHC

- **1985**: EPA found high levels of lead in the area of WCHC.
- **1997**: ATSDR and Indiana State Dept. of Health conducted an exposure investigation evaluating health concerns and potential lead exposure in the West Calumet community.
- **1998**: The exposure investigation showed that 30 percent of children under 6 in the West Calumet community had elevated blood lead levels.
- **2003-2005**: Indianapolis field office failed to have a phase I completed for WCHC.
- **2008**: EPA removed elevated levels of lead in surface soils at 13 residential properties in the WCHC area.
- **2009**: EPA listed USS Lead as a Superfund site. The Superfund site included WCHC and surrounding areas.
- **2010**: Indianapolis field office failed to have a phase I completed for WCHC.
- **2011**: ATSDR published a faulty public health assessment stating that declining blood lead levels in small children indicated that the USS Lead site was not expected to harm people’s health.
- **2014-2015**: EPA conducted soil tests at WCHC that renewed concerns of lead exposure to children.
- **2015 & 2016**: ECHA’s consultant improperly completed environmental reviews and failed to have a phase I completed for WCHC.
- **2016**: Indiana State Dept. of Health identified 18 children under 7 years old with elevated blood lead levels.
- **2016**: City of East Chicago notified WCHC residents that they would be moved due to unsafe health issues.

- **HUD missed opportunities**
- **Other agencies**
Signs of Lead Exposure Existed at WCHC as Early as 1985

HUD would have become aware of lead contamination at WCHC sooner if HUD and the City of East Chicago had properly conducted environmental reviews or if better communication among Federal, State, and City authorities had occurred. Despite the warning signs described below, several HUD officials stated that they did not become aware of WCHC’s lead exposure until 2016.

In 1985, the Indiana State Department of Health found lead contamination in the area surrounding the USS Lead facility, which was 0.11 miles south of the nearest residence. The same year, EPA performed testing that found higher levels of lead in the area surrounding WCHC compared to other areas near East Chicago. These findings resulted in government records of lead exposure in the West Calumet community, to which WCHC belonged.

In 1998, ATSDR published the results of an exposure investigation on community health concerns and lead exposure in the West Calumet community. ATSDR recommended lead contamination remediation at the former Anaconda Lead Products site, on which WCHC was built. ATSDR’s report has been available to the public since 1998.

Over time, EPA worked to address lead exposure issues at the USS Lead site. In 2008, EPA performed a time-critical removal action\(^{21}\) for 13 private residential properties that had elevated levels of lead in surface soils as a result of the former lead smelting facilities in the area. The following year, in 2009, EPA added the USS Lead site, on which WCHC was built, to the Superfund NPL. In 2011, EPA completed additional time-critical removal actions for 16 properties within the USS Lead site with elevated levels of lead in the soil. These included 5 WCHC addresses and 11 residential properties outside WCHC.

Records indicate that at least one current ECHA staff member attended a public meeting with EPA in 2009 about lead testing of residences. Additionally, a staff member who stopped working for ECHA in 2019 attended a meeting with EPA in 2011. The meeting was regarding EPA’s activities at the USS Lead site. At the meeting, EPA discussed its time-critical action to remove soil at the sites that had elevated levels of lead, including WCHC addresses adjacent to ECHA’s office. Despite the involvement of ECHA staff members at EPA meetings discussing lead contamination, EPA’s mitigation efforts at the USS Lead site, and EPA’s periodic visits to ECHA to “check the grounds,” ECHA’s

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\(^{21}\) A removal action is defined as the containment and removal of hazardous substances or other such actions as may be necessary to minimize or mitigate damage to the public health or welfare of the United States, including but not limited to fish, shellfish, wildlife, public and private property, shorelines and beaches, or the environment. EPA requires a time-critical removal action when an actual or threatened release of hazardous substances from the site presents an imminent and substantial endangerment to public health or welfare or the environment.
Executive director since 2011 told us that she was not aware of the lead contamination at WCHC until 2016.

In 2011, ATSDR issued a public health assessment stating that declining blood lead levels in small children indicated that the USS Lead site next to WCHC was not expected to harm people’s health. However, in 2018, ATSDR determined that this conclusion was faulty because it was based on a review of blood lead data for all young children in East Chicago and did not focus specifically on the levels in children living in the residential areas within the USS Lead site, such as WCHC.

In 2014 and 2015, EPA conducted soil tests for WCHC. The test results led to a campaign, beginning in July 2016 by the Indiana State Department of Health and the City of East Chicago, to conduct blood lead testing of children living at WCHC.

In 2016, the City notified WCHC residents that they would have to move due to the unsafe health issues found on the property. Several HUD officials stated that they did not learn about the lead contamination at WCHC until 2016 when it was reported on by the media. In June 2016, EPA contacted HUD for assistance in notifying WCHC residents about the contamination and to determine whether HUD had funds to relocate residents.

PIH Did Not Adequately Conduct or Oversee Environmental Reviews

Before 2015, PIH’s Indianapolis field office did not adequately conduct environmental reviews as required by 24 CFR part 50. In 2015 and 2016, the field office did not provide proper oversight of the 24 CFR part 58 environmental reviews, which allowed State and local governments to assume HUD’s responsibility for conducting environmental reviews. Had the field office first properly conducted environmental reviews and then properly overseen those reviews, it would have discovered earlier that WCHC was built on a former lead smelting facility. The improper environmental reviews allowed ECHA to complete rehabilitation projects at WCHC from 2003 to 2016 without discovering the site contamination.

2003-2014

Between 2003 and 2014, PIH’s Indianapolis field office completed four part 50 environmental reviews for WCHC as required before rehabilitation projects for the housing complex. However, the field office incorrectly marked compliance factors as “met,” indicating that landfills or waste sites were not visible from the property and that the property was more than 3,000 feet from a chemical or hazardous waste site. According to an OEE official, a correctly performed part 50 environmental review of site contamination

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22 Projects included replacing flat roofs with sloped roofs, landscaping, “make ready” rehabilitation, Americans With Disabilities Act compliance, tile replacement, kitchen remodeling, security upgrades, bathroom rehabilitation, insulation, and other miscellaneous rehabilitation efforts.

23 HUD did not provide documentation of compliance factors in its 2010-2014 environmental review of WCHC.
would have started with a search of government records and an evaluation of historic uses with the results documented as part of the environmental review record. Both results should have identified that WCHC was built on top of a former lead smelting facility and that a phase I environmental site assessment was needed to determine whether WCHC required further investigation.

A PIH field office official stated that he was not aware of HUD’s completion of any part 50 environmental reviews for WCHC. However, this same official signed off on the 2004 environmental review that HUD staff completed.

2015-2016

In 2015, ECHA began completing environmental reviews under part 58. Part 58 allowed for the transfer of HUD’s responsibilities under part 50 to the responsible entity, in this case, the City of East Chicago. As discussed above, the responsible entity for a PHA is the unit of general local government within which the project is located that exercises land use responsibility. The responsible entity assumes responsibilities for decision making and action that would apply to HUD. However, instead of the City completing the environmental reviews, ECHA hired a consultant to complete the environmental reviews for 2015 and 2016. PIH’s Indianapolis field office personnel incorrectly believed that a PHA could contract with a consultant to complete the environmental reviews in lieu of the responsible entity. They should have realized that the consultant, while allowed to assist with parts of the environmental review, was not authorized to complete the environmental reviews.

Additionally, we found that part 58 environmental reviews completed by the ECHA consultant did not comply with Federal laws and HUD regulations. For example, the environmental review records lacked the required documentation, or the documentation submitted did not meet the minimum requirements for 16 of the 17 compliance factors outlined in part 58, including the required documentation related to site contamination. For more details on how the environmental reviews were incorrect and incomplete, see appendix B.

With proper oversight, PIH’s Indianapolis field office should have recognized these deficiencies in the environmental reviews and determined that they were incorrectly prepared and incomplete. A 2015 HUD Office of Inspector General (OIG) report found similar concerns with PIH’s oversight of compliance with part 58 environmental requirements. The report stated that PIH “did not adequately monitor or provide training to its staff, grantees, or responsible entities on how to comply with environmental requirements.” The report included a recommendation that HUD comply with and provide adequate oversight to ensure compliance with environmental requirements and a recommendation that HUD’s program offices develop a training program on those environmental requirements. As of October 2020, both recommendations remained open.

Had correct and complete part 58 environmental reviews of the compliance factors been performed, such as site contamination, it should have led to a phase I environmental site assessment. The phase I environmental site assessment would have revealed recognizable

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24 HUD OIG, Office of Audit, Region 6, Implementation of and Compliance With Environmental Requirements, 2015-FW-0001, Fort Worth, TX, 2015
environmental conditions at WCHC; namely, that WCHC was built on top of a former lead smelting facility and that the site was contaminated. A 2017 phase I environmental site assessment specifically uncovered the following recognized environmental conditions on the WCHC property:

- onsite historic bulk petroleum storage tanks,
- onsite historic rail spurs,
- onsite historic polychlorinated biphenyl,\(^{25}\)
- onsite historic bulk oil storage,
- known contamination of lead and arsenic in onsite soils,
- possible onsite vapor encroachment conditions,
- historic industrial operations and bulk oil storage identified on southeast adjoining site,
- historic metal refining and industrial operations identified on south adjoining site, and
- USS Lead Refinery Superfund site.

**Missed Opportunities and Poor Oversight Resulted in Lead Poisoning Among Residents**

As a result of these missed opportunities and poor oversight, WCHC residents continued living in unsafe conditions for years. Of concern, HUD’s inadequate oversight contributed to the lead poisoning of children in WCHC. According to an August 2018 ATSDR report, Historical Blood Lead Levels in East Chicago, Indiana Neighborhoods Impacted by Lead Smelters, between 2005 and 2015, a child living in WCHC had a nearly three times greater chance of having elevated blood lead than children living in other areas of East Chicago.\(^{26}\) During that time, 27.5 percent (120 total) of blood test results from children living in WCHC indicated elevated lead levels.\(^{27}\)

**HUD Has Partnered With EPA To Address HUD-Funded Properties on or Near Potentially Contaminated Sites, but More Action Is Needed**

While HUD has increased collaboration with EPA, it has not proactively analyzed properties with potentially uncontrolled human exposure to contamination. It is EPA’s mission to protect human health and the environment, but it is HUD’s mission to create quality homes for all that are decent, safe, and sanitary. Public housing generally has historically been built on the least desirable land, particularly the public housing built before the passage of NEPA and the requirement that agencies consider environmental concerns. Therefore, it is important that HUD strategically review and assess properties to better identify potential concerns. If HUD does not take more action, residents at some HUD-funded properties will continue living on or near potentially contaminated sites.

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\(^{25}\) Polychlorinated biphenyls are man-made organic chemicals known as chlorinated hydrocarbons. The United States manufactured polychlorinated biphenyls until banned in 1979. Polychlorinated biphenyls were used in hundreds of industrial and commercial applications and have been shown to cause cancer as well as a variety of other adverse health effects on the immune system, reproductive system, nervous system, and endocrine system.

\(^{26}\) A blood lead level greater than or equal to 5 micrograms per deciliter.

\(^{27}\) This calculation accounts for one test per child per year. A child may have been tested more than once during the 11-year period.
HUD Has Improved Communication and Collaboration With EPA

Since HUD became aware of the lead contamination at WCHC in 2016, HUD has improved communication and collaboration with EPA. HUD and EPA have worked closely to address potential contamination at HUD-funded properties. This improvement is necessary because the Superfund remediation process falls under EPA’s jurisdiction. EPA has the expertise to test and identify health risks and has access to financial resources to clean up Superfund sites.

In January 2017, HUD entered into an MOU with EPA that was designed to improve communication and information sharing among the agencies and thereby reduce potential health risks posed to residents of HUD-funded properties. In August 2017, HUD created an internal protocol to implement HUD’s and EPA’s MOU within HUD. The protocol

- Defined the roles and responsibilities for HUD and EPA staff when the two agencies identified HUD-funded properties on or near Superfund sites or non-Superfund sites that posed a threat to residents living in HUD-funded properties.
- Outlined the communication structure and process HUD should use to define the scope of contamination issues for specific sites of concern.
- Outlined coordination between HUD’s program and environmental staffs to determine their response to these concerns.

Since the establishment of the MOU and internal protocol, HUD and EPA staffs have met quarterly to discuss new and existing sites that may affect residents in HUD-funded properties. Several OEE officials told us that the working relationship and communications with EPA have been working well. Additionally, HUD and EPA staffs have trained each other on their respective programs and regulations, continuously improved the proximity analyses of potentially contaminated HUD-funded properties, and coordinated site briefings for 11 Superfund sites. As of September 2020, HUD and EPA had ongoing quarterly meetings. For a timeline on HUD’s and EPA’s collaboration, see figure 3.

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28 Proximity to a Superfund site does not always indicate a risk; risk is determined by several factors, including the exposure pathway and the human exposure status of the site. However, HUD relies on a proximity analysis to Superfund sites as its first step in determining potential risk.
Figure 3 - HUD’s collaboration with EPA, October 2016 – February 2020

<table>
<thead>
<tr>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
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<tbody>
<tr>
<td>• <strong>October</strong> - EPA provided initial proximity analysis.</td>
<td>• <strong>January</strong> - HUD and EPA entered into an MOU and began quarterly meetings, which are ongoing.</td>
<td>• <strong>February</strong> - HUD used EPA’s 2016 list to create a list of 20 priority properties.</td>
<td>• <strong>July</strong> - OEE hosted HUD 101 training for EPA staff.</td>
<td>• <strong>October</strong> - HUD and EPA worked to refine the proximity analysis, which resulted with an updated list.</td>
</tr>
<tr>
<td></td>
<td>• <strong>September</strong> - EPA updated the proximity analysis to correct for double counting errors.</td>
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<td>Source: HUD OEE</td>
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HUD Has Worked With EPA To Develop a Proximity Analysis To Identify HUD-Funded Properties on or Near Contaminated Sites

After HUD became aware of the contamination at WCHC, OEE began working with EPA to identify other HUD-funded properties that were on or near Superfund sites and non-Superfund sites with potential lead contamination. In October 2016, EPA provided HUD with a list of public housing and multifamily properties within 1 mile of a potentially contaminated site. The list included 18,158 properties near a Superfund site and 12,070 properties near non-Superfund sites with potential lead contamination. Of the 18,158 properties near a Superfund site, EPA identified 7,676 as the highest priority because the Superfund sites had not yet been cleaned up, had either ongoing human exposure or no available data to determine exposure status, and had either soil contamination or an uncharacterized contamination.
HUD used the list to identify the Superfund and non-Superfund sites with the highest potential for serious health risks to residents at HUD-funded properties. HUD based its assessment of risk on uncontrolled human exposure, soil contamination, and the number of potentially impacted HUD units. This assessment resulted in a list of 20 priority sites. EPA collected additional data for HUD and, using EPA’s data, HUD further narrowed the list to seven sites it considered to be the highest risk for residents in HUD-funded properties. EPA and HUD implemented their MOU to address the threat to HUD-funded properties. As of November 2020, EPA had cleaned up or was in the process of cleaning up six of the seven sites so that they would no longer be harmful to human health or the environment.

After our fieldwork concluded, OEE informed us that since 2016, both agencies’ data had improved. As of February 2020, there were 2,528 public housing properties and 217 Multifamily Section 8 project-based rental assistance properties within 1 mile of a Superfund site on which human exposure was not under control or there was not enough information to determine human exposure status. This total of 2,745 properties is down from the 7,676 properties in EPA’s 2016 proximity analysis report.

While HUD and EPA have improved their collaboration, HUD cannot rely completely on EPA to address all suspected HUD-funded property contamination in a timely manner. OEE requested that EPA prioritize contamination testing at sites near HUD-funded properties. However, EPA could not do so because it must follow its own testing protocols.

**HUD Did Not Have a Strategy To Research and Review Properties for Possible Site Contamination**

HUD must do as much as it can within its own authority to identify potentially contaminated properties. However, HUD lacked a strategy to research and review potentially contaminated properties and determine whether uncovered information should trigger a consideration of site contamination in future environmental reviews. Instead, HUD has relied on EPA to identify contaminated HUD-funded properties and develop a mitigation strategy for those properties. If HUD does not take more action, residents at HUD-funded properties may continue living on potentially contaminated sites.

After receiving the 2016 proximity analysis, PIH began an effort to proactively use new information obtained from EPA, but it did not finish the effort. PIH established a team to contact PHAs and determine what the PHAs knew about their location near contaminated sites. A PIH official informed us that some PHAs were not aware that they were near a Superfund site, while others were aware of potential contamination but did not think it relevant. The team’s work on this effort lasted only 6 months, when it was directed to disband. The team members were told to focus on other PIH priorities, leading to competing responsibilities.

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29 CPD’s technical comments to the draft report stated that in some cases, EPA had been able to prioritize HUD projects for cleanup. This viewpoint differed from evidence we collected during fieldwork, and OEE did not provide an example or supporting documentation for this statement. We have, therefore, relied on our original evidence.
In February 2020, the updated proximity analysis narrowed the list of potentially contaminated HUD-funded properties on or near Superfund sites. The updated proximity analysis included additional information, such as human exposure status. This addition allowed HUD to narrow the list of potentially contaminated sites further to those in which the contamination would or could be harmful to residents. However, beyond narrowing the list of potentially harmful properties, HUD has done little to learn more about the properties it suspects of being harmful to residents. When asked what HUD can do about properties that it suspects of being potentially contaminated, one HUD official commented on feeling “stuck” and unsure about what else to do. Another HUD official stated that he tries to triage sites in his region but felt that HUD needed a consistent national strategy to address potentially contaminated sites. A third HUD official stated that while she was aware of 20 to 30 potentially contaminated sites in her region, HUD was not doing anything proactive to address potential contamination at HUD-funded properties.

One proactive approach to identifying potentially contaminated properties would be for HUD to research properties of concern, particularly their historic uses. For many properties, the responsible entity should have reviewed and documented historic uses in the most recent environmental review. HUD can request environmental review records using its authority to periodically monitor completed projects for compliance.

However, many HUD-funded properties were built before NEPA and as a result, likely never received an initial environmental review. An environmental official told us that before 1996, environmental reviews were completed inconsistently. In instances when requesting the documentation from a phase I environmental site assessment is not feasible or reliable, one PIH official suggested that fire insurance maps, while not available for all sites, are a good source of site history information commonly reviewed by professionals when completing a phase I environmental site assessment. Fire insurance maps could be easily accessed through a low-cost subscription service. Other sources of site history information include newspaper archives, aerial photographs, land title records, and property tax files. Once HUD better understands its properties, it will have a better understanding of which properties require further assessment to rule out possible contamination.

30 In the 19th century, fire insurance companies and underwriters required accurate and detailed maps of the properties they were insuring. The maps included information on the use of individual buildings. The insurance industry stopped requiring these maps in the late 1970s. The Library of Congress has since digitized approximately 500,000 maps.
Recommendations

We are concerned that the health risks to residents living in many HUD-funded properties remain unidentified and that residents may suffer as a result. While WCHC was demolished and no longer poses a threat to residents, it highlights how proper oversight is necessary to ensure that environmental threats are identified in a timely manner. To promote decent, safe, and sanitary housing, HUD needs to understand where potential health risks to residents of HUD-funded properties exist.

The current environmental review process does not trigger a review of site contamination unless a property chooses to perform activities that require a level of environmental review that is “categorically excluded subject to” or above. Understanding its properties would empower HUD to determine which properties it should consider for site contamination in future environmental reviews. HUD should then monitor completed environmental reviews to ensure that site contamination was appropriately considered.

While HUD has partnered with EPA to address HUD-funded properties on or near potentially contaminated sites, more action is needed. HUD needs a more proactive approach to identifying contaminated properties and potential health risks to residents. The longer it takes HUD to develop a strategy to review, research, and monitor the sites on EPA’s proximity analyses, the longer residents will live on potentially contaminated land, prolonging their exposure. Therefore, we make these recommendations to the Deputy Assistant Secretaries for Housing’s Multifamily Housing Programs and PIH’s Office of Field Operations.

We recommend that the Deputy Assistant Secretary for Multifamily Housing Programs

1. Develop and implement a strategy to review Multifamily-funded properties with potential contamination to determine whether site contamination should be considered in future environmental reviews.

To ensure that health risks to residents can be identified in a timely manner, it is crucial that Multifamily develop and implement a strategy to research and review properties to determine whether site contamination should be considered in future environmental reviews. Multifamily should prioritize properties in its portfolio for review based on a variety of factors, such as historic uses of the land, proximity to Superfund or non-Superfund sites with potential contamination, and the risk of human exposure. The strategy Multifamily develops should also detail how results from the review will be factored into all levels of environmental reviews of Multifamily-funded properties identified as potentially contaminated.
2. **Monitor environmental reviews of Multifamily-funded properties with potential contamination.**

Multifamily should monitor completed environmental reviews for properties identified as potentially contaminated to ensure that site contamination was appropriately considered, as outlined in the strategy developed in recommendation 1.

**We recommend that the Deputy Assistant Secretary for the Office of Field Operations**

3. **Develop and implement a strategy to review PIH-funded properties with potential contamination to determine whether site contamination should be considered in future environmental reviews.**

To ensure that health risks to residents can be identified in a timely manner, it is crucial that the Office of Field Operations develop and implement a strategy to research and review properties to determine whether site contamination should be considered in future environmental reviews. The Office of Field Operations should prioritize properties in its portfolio for review based on a variety of factors, such as historic uses of the land, proximity to Superfund or non-Superfund sites with potential contamination, and the risk of human exposure. The strategy the Office of Field Operations develops should also detail how results from the review will be factored into all levels of environmental reviews of PIH-funded properties identified as potentially contaminated.

4. **Monitor environmental reviews of PIH-funded properties with potential contamination.**

The Office of Field Operations should monitor completed environmental reviews for properties identified as potentially contaminated to ensure that site contamination was appropriately considered, as outlined in the strategy developed in recommendation 3.
Agency Comments and OIG Response

Summary of Agency Comments and OIG Responses

We requested that PIH, Multifamily, and CPD provide formal comments in response to our draft report. We also requested that the two offices that received recommendations—PIH and Multifamily—indicate agreement or disagreement with our recommendations. All three offices provided formal comments, although PIH and Multifamily did not indicate whether they agreed with our recommendations. As a result of the responses provided, we consider recommendations 1, 2, 3, and 4 “unresolved-open.”

Finding 1- HUD and Other Agencies Missed Opportunities To Identify Site Contamination at WCHC

PIH, Multifamily, and CPD did not specifically comment on Finding 1.

Finding 2- HUD Has Partnered With EPA To Address HUD-Funded Properties on or Near Potentially Contaminated Sites, but More Action Is Needed

PIH and Multifamily expressed disagreement with our second finding, HUD Has Partnered With EPA To Address HUD-Funded Properties on or Near Potentially Contaminated Sites, but More Action Is Needed. CPD additionally raised concerns with the second finding. The following is our response to the offices’ concerns.

The Difference Between Radius and Risk

PIH reported that the report’s presentation of radius and risk was not consistent with EPA’s and the Centers for Disease Control and Prevention’s environmental risk indicators. Additionally, PIH stated that EPA reviews several factors to determine risk, including exposure pathway. Human exposure pathways and the differences between proximity and risk are both addressed in the report. We state in footnote 28 that proximity to a Superfund site does not always indicate risk. However, HUD relies on a proximity analysis to Superfund sites as its first step in determining potential risk. Our second finding specifically discusses HUD-funded properties where EPA indicated that human exposure is not under control.

Our Inclusion of EPA’s 2016 Proximity Analysis

Regarding the discussion of EPA’s 2016 proximity analysis, PIH had concerns with its inclusion in the report, stating that it would give false precision and possibly confuse readers. PIH reported that the 2016 proximity analysis was the initial effort between HUD and EPA and that it was not relied upon during the evaluation period (April 2019 to February 2020). We disagree with these comments. We chose to describe the 2016 proximity analysis in our report because it was a result of HUD’s and EPA’s initial collaboration, following HUD’s awareness of the

31 The Office of Lead Hazard Control and Healthy Homes also provided formal comments. However, because our report was not directed to this office, we did not include its response in this report. We reviewed its response for technical feedback.
contamination at WCHC. Our report describes how HUD and EPA have updated data since the initial 2016 proximity analysis.

We take issue with PIH’s attempt to retroactively label the 2016 proximity analysis as a draft. The 2016 proximity analysis had no indication of a draft status. Further, none of the people we interviewed during fieldwork described the 2016 analysis as a draft. Although HUD and EPA may have refined or corrected aspects of the proximity analysis, the evidence gathered during our review does not support a conclusion that the 2016 proximity analysis was a “draft.”

**HUD Has an Internal Protocol**

PIH and CPD stated that the section in finding 2, HUD Did Not Have a Strategy To Research and Review Properties for Possible Site Contamination, was misleading. Multifamily similarly objected to the finding. The offices based this assertion on the existence of a HUD internal protocol for addressing HUD-funded properties on or near Superfund sites, which we describe in our report. The offices reported that as a result of the protocol, PIH, Multifamily, and OEE have held site briefings and have demonstrated analysis and collaboration.

We agree that this was an important protocol because it implemented HUD’s and EPA’s MOU within HUD. However, the protocol did not include a strategy to proactively use information from EPA to gain a better understanding of potentially contaminated HUD-funded properties. While the internal protocol states that sites of concern may come to HUD’s attention through mapping EPA and HUD data, as both PIH and Multifamily pointed out in their comments to the draft report, “proximity to a Superfund site does not always indicate a risk.” The protocol goes on to state that once HUD staff is “notified of a site of concern,” it will meet with EPA staff “to discuss technical facts related to the specific site.” The protocol outlined the activities that occur once HUD staff is notified of a site of concern but did not indicate any HUD action before discussions with EPA. Therefore, HUD needs a strategy that focuses on researching and reviewing potentially contaminated properties and then proactively determining whether uncovered information should trigger consideration of site contamination in future environmental reviews.

Multifamily and CPD also both reported that under the internal protocol, HUD’s regional environmental officers contact EPA to arrange site-specific meetings when notified of a concern. As stated above in our response to PIH’s comments, we agree that this is an important protocol. However, we also note that both offices’ responses state that the protocol is triggered only when HUD is notified of a site of concern. HUD needs a strategy to use the proximity analysis data provided by EPA, research and review potentially contaminated properties, and proactively determine whether uncovered information should trigger consideration of site contamination in future environmental reviews or a site-specific meeting with EPA.

**Recommendations 1 and 2**

In its response, Multifamily did not state agreement or disagreement with recommendations 1 and 2, but it outlined steps it would take to implement them. For recommendation 1, it provided a four-step process based on the existing protocol for addressing HUD-funded properties on or near superfund sites. As stated above, the protocol outlined the activities that occur once HUD
staff is notified of a site of concern but did not indicate any HUD action before discussions with EPA. Therefore, we look forward to learning what proactive steps Multifamily will take after it receives an updated proximity analysis to research and review properties to determine whether site contamination should be considered in future environmental reviews.

Recommendation 1 will remain “unresolved-open.” We will work with Multifamily to better understand its proposed corrective actions to determine if the office will meet the intent of the recommendation. We will also ask for an indication of agreement with the recommendation and target dates for completion of corrective actions. Upon completion of corrective actions, Multifamily should provide us evidence of this completion, and we will consider whether the recommendation should be closed.

For recommendation 2, Multifamily listed a plan for continued oversight of sites with risk for human exposure and safeguards in the environmental review process to ensure that contamination issues are identified and tracked. Regarding oversight, it said that for sites with a risk of human exposure, the Multifamily Assets and Counterpart Oversight will conduct periodic calls with field offices to confirm compliance and offer advice on resolution.

Regarding safeguards in the environmental review process, Multifamily noted that its regulations require projects to consider site contamination for actions that trigger environmental reviews. Additionally, in December 2020, the office added language to its Multifamily Accelerated Processing Guide that encouraged its staff to consult with the regional or field environmental officer on projects located on or adjacent to Superfund sites and have unresolved contamination with the potential to affect the health and safety of occupants. Finally, it said that Multifamily will track any environmental review that requires ongoing remediation in both program documents (such as grant agreements) and in HUD’s Environmental Review Online System, to ensure resolution.

Recommendation 2 will remain “unresolved-open.” We will work with Multifamily to better understand its proposed corrective actions to determine if the office will meet the intent of the recommendation. We will also ask for an indication of agreement with the recommendation and target dates for completion of corrective actions. Upon completion of corrective actions, Multifamily should provide us evidence of this completion, and we will consider whether the recommendation should be closed.

**Recommendations 3 and 4**

In its response, PIH did not indicate agreement or disagreement with recommendations 3 or 4. For recommendation 3, PIH said that it was working with OEE, Multifamily, and EPA to produce an updated 2021 proximity analysis and then identify the sites with the greatest risk for human exposure. For recommendation 4, PIH said that it will continue to work with OEE staff on risk-based monitoring strategies of responsible entities. Based on this response, we similarly
look forward to learning what additional proactive steps PIH will take to determine whether site contamination should be considered in future environmental reviews.

Recommendations 3 and 4 will remain “unresolved-open.” To reach resolution, PIH should provide us with proposed management decisions that (1) indicate agreement with the recommendation, (2) propose corrective actions, and (3) give a target date for completion of corrective actions. Upon completion of corrective actions, PIH should provide us evidence of this completion, and we will consider whether the recommendation should be closed.

Other Matters

In response to PIH, Multifamily, and CPD’s comments regarding the inclusion of potentially contaminated sites that have not been designated Superfund sites in its 2020 proximity analysis, we agreed with the comment and removed the paragraph from the final report.

Multifamily said that we were too broad in our characterization of EPA and testing and that EPA was able to prioritize testing HUD properties. CPD provided a similar comment in its technical comments. However, their viewpoints differed from evidence we collected during fieldwork, and we were not provided an example or supporting documentation. We have, therefore, relied on our original evidence.

In response to Multifamily’s comment regarding footnote 29, we deleted the footnote.
Multifamily Comments to the Draft Report

MEMORANDUM FOR: Brian Pattison, Assistant Inspector General for Evaluation, Office of Inspector General

FROM: C. Lamar Seats, Deputy Assistant Secretary for Multifamily Housing Programs


The Office of Multifamily Housing Programs (Multifamily) has reviewed the December 15th, 2020 draft report of the Office of Inspector General Office (OIG) of Evaluation titled “Contaminated Sites Pose Potential Health Risks to Residents at HUD-Funded Properties.” Multifamily offers the following comments on the draft report for consideration.

The HUD Office of Inspector General Office of Evaluation conducted an evaluation to determine the steps HUD has taken to determine the potential health risks posed to residents in HUD-funded properties by Superfund and non-Superfund sites. The OIG draft report made two findings and four recommendations intended to help HUD develop and implement strategies to research and review properties to determine whether site contamination should be considered in future environmental reviews and then monitor those reviews.

Multifamily shares the OIGs concerns about contamination and appreciates the opportunity to explain its efforts to identify risks and protect residents. Multifamily also notes and appreciates the OIG’s edits in response to technical comments we submitted in September 2020. However, Multifamily has several further comments on the draft report and does not agree with the OIG’s second finding.

**Comment 1: Proximity and Risk.** The updated draft report correctly notes that proximity to a Superfund site does not always indicate a risk. Risk is determined by several factors, including the exposure pathway and the human exposure status of the site. The vast majority of NPL sites have human exposure under control. Only a small number do not, or there is not enough data to make this determination (see EPA’s superfund human exposure dashboard [https://www.epa.gov/superfund/superfund-human-exposure-dashboard](https://www.epa.gov/superfund/superfund-human-exposure-dashboard)).

Multifamily would like to stress that projects on or near NPL sites EPA has designated as human exposure not under control or with insufficient data may still be safe for residential use. EPA has a goal of remediating contaminated sites and returning them to productive use, but at the
same time is very conservative in its official classifications. EPA moves sites to human exposure under control status only when no unacceptable human pathways exist anywhere on the site. Even if these pathways exist at a very small portion of the site (for example behind a fence with advisory signs posted), EPA will classify the site as human exposure not under control until all potential exposures are addressed. Frequently the human exposure pathway is unrelated to housing, for example eating shellfish from a contaminated water source. As a part of its characterization of NPL sites, EPA does extensive testing. EPA may issue Site Wide Ready for Anticipated Use (SWARU) reports, Ready for Reuse (RRR) Determinations, or provide sites with letters indicating that a property is safe for residential use.

Comment 2: 2020 Proximity Analysis and non-Superfund sites. The draft OIG report incorrectly asserts that “the February 2020 proximity analysis did not include any potentially contaminated non-Superfund sites” (page 16). In fact, the 2020 proximity analysis includes all categories discussed in the 2016 HUD-EPA MOU: “All proposed, final, and deleted NPL sites, as well as select non-NPL sites of concern when identified by EPA (e.g., sites with Superfund Alternative Agreements, removal actions).” The February 2020 proximity analysis includes 40 non-NPL properties that EPA has determined rise to the MOU level of concern. These are marked “Not on NPL” in the 2020 proximity analysis. Part of HUD’s ongoing work with EPA is to understand more details about this category so we can appropriately consider the risk to our properties and residents. The number of non-NPL sites may rise or fall after these ongoing discussions.

The comments from HUD’s Office of Environment and Energy will explain in more detail the difference between the 2016 and 2020 EPA data.

Comment 3: Multifamily programs. In a footnote on page 16, the draft OIG report states: “In addition to Section 8 subsidized housing, as of fiscal year 2018, Multifamily had 14 other programs that promote homeownership and rental assistance.” The Office of Multifamily Housing administers three programs related to rent subsidy: 202 Supportive Housing for the Elderly, 811 Supportive Housing for Persons with Disabilities and Project Based Rental Assistance (PBRA). Multifamily does not administer any programs related to homeownership. We are unclear what these 14 programs might be and ask for clarification, especially in light of the OIG’s footnote on page 1 defining HUD-funded properties as properties for which HUD obligates funds.

Comment 4: EPA and testing. The OIG’s statement about EPA not prioritizing HUD-funded properties (page 16) is too broad. Although EPA has its own testing priorities, in several cases they were able to prioritize testing HUD properties. In all cases EPA has provided helpful site-specific information and collaboration.

Objection to Finding 2. Multifamily disagrees with the Finding that HUD did not have a strategy to research and review properties for possible site contamination. HUD in fact has a formal and ongoing strategy, which is laid out in the 2017 document “Protocol for Addressing HUD-Assisted Properties On and/or Near Superfund Sites.” Under this protocol, HUD’s Regional Environmental Officers under HUD’s Office of Environment and Energy (OEE) are the primary point of contact, and when notified of a site of concern (for example through GIS mapping with HUD and EPA data), contact the EPA and arrange for site-specific meetings. Following this protocol/strategy, OEE has held site briefings for eleven Superfund Sites. To date, EPA testing at
these sites has not indicated elevated contamination levels at HUD-assisted properties. Our response below provides additional information on this strategy.

The discussion below includes Multifamily’s comments on the specific OIG Recommendations:

**OIG Recommendation 1:** We recommend that the Deputy Assistant Secretary for Multifamily Housing Programs develop and implement a strategy to review Multifamily-funded properties with potential contamination to determine whether site contamination should be considered in future environmental reviews.

**HUD Comment:**

Multifamily Housing plans to continue the successful strategy outlined in the 2017 document “Protocol for Addressing HUD-Assisted Properties On and/or Near Superfund Sites.”

1. Multifamily is currently working with OEE, HUD’s Office of Public and Indian Housing (PIH) and EPA on a 2021 proximity analysis using the latest data from EPA and from HUD. The data proximity analysis is an ongoing process, as NPL sites are continually proposed or deleted, and HUD’s portfolio changes. HUD and EPA will update the proximity analysis regularly to make sure it is working with the latest data.
   a. The 2021 effort will clearly define the HUD data for EPA users and EPA data for HUD users (for example clearly define what criteria EPA uses for its list of non-NPL sites.)
   b. The 2021 effort will include Multifamily and PIH program staff to make sure the HUD program data is correct and not under or double-counted.
   c. The 2021 effort will consider that both the EPA and HUD data are currently point data and consider proximity accordingly.

2. Once the 2021 proximity analysis is finished, Multifamily will work closely with OEE, PIH and EPA on identifying the NPL or non-NPL sites of greatest risk for human exposure. Based on our analysis of the 2020 proximity analysis data, Multifamily anticipates that only a small number of Multifamily projects are near sites with a potential risk for human exposure. Most sites pose no risk to residential use through distance (for example heavy metals in soils do not travel from the defined NPL boundaries), SWARUs, RFRs, site specific letters, or exposure pathways that do not pose a risk to Housing residents.

3. Once the NPL or non-NPL sites with the greatest risk for human exposure are identified, Multifamily will participate in site briefings with EPA, OEE and PIH to gather site-specific information about the HUD properties affected.

4. If any Multifamily properties pose a potential risk to residents, Multifamily will take appropriate action on a case-by-case basis considering the nature of the contaminant, the exposure pathway to residents and the potential health impacts to residents. The range of actions include:
   a. Requiring third party environmental reports to ascertain more information
b. Requiring mitigation or remediation
c. Temporarily relocating residents
d. Permanently terminating the HUD subsidy and relocating residents.

Any action would be done in consultation with OEE, EPA, HUD’s Office of Healthy Homes and Lead Hazard Control, and any relevant state or local environmental or health authorities.

**OIG Recommendation 2: We recommend that the Deputy Assistant Secretary for Multifamily Housing Programs Monitor environmental reviews of Multifamily-funded properties with potential contamination**

**HUD Comment:**

For sites with risk for human exposure identified in Step 4 above, Multifamily will take appropriate site-specific action by requiring the program participant owner to perform all required tests or mitigation to address the issue. To ensure owner compliance, these properties will be assigned to Multifamily’s most experienced Resolution Specialists and Account Executives. The Multifamily Asset and Counterparty Oversight Division, the office in Multifamily Housing charged with portfolio-level oversight, will conduct periodic calls with the field offices to confirm compliance and offer advice on resolution. In addition, the Office of Housing Program Environmental Compliance Officer and environmental staff from the Office of Environment and Energy will provide advice and assistance to the field staff on the monitoring and mitigation proposed by the owner.

Environmental reviews for Multifamily programs are completed directly by Multifamily staff, in contrast to PIH programs where environmental reviews are generally completed under 24 CFR Part 58 by Responsible Entities and HUD periodically monitors a sampling of files from the Responsible Entity. However, there are safeguards (as discussed below) built into the Multifamily environmental review process to ensure that contamination issues are identified and tracked.

First, Multifamily Program regulations require projects to consider site contamination for actions that trigger environmental reviews. This includes Multifamily properties that are new to HUD’s portfolio or that require work over the property level maintenance threshold; rehabilitated 811 and 202 projects; Section 8 transfers; and Section 8 renewals with capital repairs. These programs follow the MAP guide environmental requirements either directly or by reference. The latest version of the MAP guide, published December 18, 2020, has new applicable language in Section 9.2.2.G:

Housing staff are strongly encouraged to consult with the Regional or Field Environmental Officer (regardless of the number of units) for Categorically Excluded Subject To the Laws and Authorities and Environmental Assessment projects that:

- Are located on or adjacent to a designated Superfund Site or Formerly Used Defense Site (FUD)
- Have an unresolved contamination issue with the potential to affect the health and safety of occupants.
The new language does not impose a new requirement, but instead makes the existing expectation explicit. Multifamily projects therefore have HUD environmental professionals reviewing environmental reports for projects near Superfund Sites or with complex or unresolved contamination issues. Our experience to date with sites on or near superfund sites is that these reviews include the FEO, REO, Program Environmental Clearance Officer, and HQ OEE staff.

Second, any environmental reviews that require ongoing remediation will track these conditions in both program documents (such as grant agreements) and in HUD’s Environmental Review Online System (HEROS) to ensure they are resolved.

Should you have any questions regarding these draft audit report comments, please do not hesitate to contact me or Sara Jensen, Housing Program Environmental Clearance Officer, at sara.jensen@hud.gov or 206-220-5226.
DATE: January 15, 2021

MEMORANDUM FOR: Brian Pattison, Assistant Inspector General for Evaluation, Office of Inspector General

FROM: Felicia Gaither, Deputy Assistant Secretary for Field Operations, Office of Public and Indian Housing, Felicia Gaither


The Office of Public and Indian Housing (PIH) has reviewed the December 15, 2020 draft evaluation report of the Office of Inspector General Office (OIG) titled "Contaminated Sites Pose Potential Health Risks to Residents at HUD-Funded Properties." PIH offers the following comments on the draft report for consideration.

The HUD OIG Office of Evaluation conducted an evaluation to determine HUD's steps to determine the potential health risks posed to residents in HUD-funded properties within proximity to Environmental Protection Agency (EPA) Superfund and non-Superfund sites. National priority list (NPL) sites are the EPA sites commonly referred to as Superfund sites. The OIG draft report made two findings and four recommendations for HUD to develop and implement strategies to review properties for site contamination. Two recommendations were for HUD Multifamily, and two identical recommendations were for PIH. OIG evaluated the circumstances and contamination at the former West Calumet Housing Complex (WCHC) in East Chicago, Indiana. The circumstances at the former WCHC site helped inform the continuing collaboration with EPA to avoid another situation like WCHC.

PIH appreciates that OIG provided an opportunity for staff to offer comments on its early draft, and appreciates the changes made to the Recommendations. PIH has additional comments and does not agree with the OIG's second finding.

**Comment 1: Proximity and Risk.** The updated draft report correctly notes PIH's understanding from EPA that proximity to a Superfund site does not always indicate a risk. EPA determines risk by several factors, including the exposure pathway and EPA classification of the site's human exposure status. It is PIH's understanding from EPA's data that the majority of NPL sites have human exposure under control. Only a small number do not, or there is not enough data to make this determination (see EPA's superfund human exposure dashboard (https://www.epa.gov/superfund/superfund-human-exposure-dashboard).)

Properties near NPL sites, which EPA has designated as human exposure not under control or with insufficient data, may still be safe for residential use. EPA has a goal of remediating
contaminated sites and returning them to productive use. EPA moves sites to human exposure under control status only when no unacceptable human pathways exist anywhere on the site. Even if these pathways exist on a tiny portion of the site (for example, behind a fence with advisory signs posted). Frequently, the human exposure pathway is unrelated to housing. For example, a warning not to consume shellfish from a contaminated water source does not pose any direct risk to residents of an apartment building within a one-mile radius of that water source. As a part of its characterization of NPL sites, EPA does extensive testing and provides comprehensive site records. Understanding EPA site indicators such as human exposure and construction status is an important part of our coordination with the EPA. Appropriate risk communication is vital to our partners at EPA and the Center for Disease Control (CDC). This report's presentation of radius and risk is not consistent with our partners' environmental risk indicators for the overall national housing stock, including public housing.

Comment 2: 2020 Proximity analysis and non-Superfund sites. PIH agrees with the OIG's comment that including non-Superfund sites in the EPA site proximity analysis improves HUD's knowledge of potential contamination, but it would like to correct the OIG's statement that the current proximity analysis excludes non-Superfund sites entirely. In fact, the HUD-EPA MOU states that the proximity analysis will include "select non-Superfund sites of concern" when such sites are identified by the EPA, and the current analysis does include non-Superfund sites. PIH is aware that some non-Superfund sites that were included in the first draft 2016 proximity analysis have since been removed from more recent versions. Notably, the draft 2016 analysis included sites with potential lead contamination from Eckel's List, which was an academic dissertation and not maintained by EPA. HUD and EPA have since determined that Eckel's List should not be included in more recent proximity analysis, which is now based entirely on EPA data.

Comment 3: The references and results of the draft EPA 2016 proximity analysis report. References and draft results of what the report calls "EPA's 2016 proximity analysis report" will give a false precision and is potentially confusing to readers of this report. This 2016 initial effort was the first draft to conduct a geospatial analysis using large datasets while two federal partners were trying to learn each other's data. PIH staff working with partners at the EPA on the MOU partnerships have never relied upon this first draft analysis for the entirety of this evaluation period.

Comment 4: HUD has a formal and ongoing strategy. PIH is concerned that Finding 2, HUD Did Not Have a Strategy to Research and Review Properties for Possible Site Contamination, is misleading. HUD has had a formal and ongoing strategy entitled "Protocol for addressing HUD-Assisted Properties On and/or Near Superfund Sites", since 2017. Following this protocol/strategy, PIH, Multifamily, and OEE have held site briefings and have demonstrated analysis and collaboration from the strategy in place.

The discussion below includes PIH’s comments on the specific OIG Recommendations:

OIG Recommendation 3: We recommend that the Deputy Assistant Secretary for the Office of Field Operations develop and implement a strategy to review PIH-funded properties with
potential contamination to determine whether site contamination should be considered in future environmental reviews.

PIH Comment: PIH Program Environmental Clearance Officers (PECOs) in both Office of Public Housing Investments (OPHI) and Office of Native American Programs (ONAP) continue to build on the successful strategy outlined in the 2017 document “Protocol for Addressing HUD-Assisted Properties On and/or Near Superfund Sites.” PIH is currently working with OEE, Multifamily, and EPA on a 2021 proximity analysis using the latest data from EPA and HUD. The data proximity analysis is an ongoing process, as NPL sites are continually proposed or deleted, and HUD’s portfolio changes. HUD and the EPA will regularly update the proximity analysis to make sure it is working with the latest data. Once the analysis is updated, PIH will continue to work with the EPA to identify the NPL or non-NPL sites of greatest risk for human exposure. The current analysis and coordination are informed by EPA risk indicators and EPA site performance measures including Site Wide Ready for Anticipated Use (SWARU) and Ready for Reuse (RfR).

OIG Recommendation 4: We recommend that the Deputy Assistant Secretary for the Office of Field Operations monitor environmental reviews of PIH-funded properties with potential contamination.

PIH Comment: PIH will continue to work with OEE staff on risk-based monitoring strategies of responsible entities (REs), including PHA grantee project activities. Recent progress on this includes a toolkit and plan for monitoring of PHA activities conducted in partnership with REs.

Should you have any questions regarding these draft audit report comments, please do not hesitate to contact Justin Gray, Public Housing PECO, or Willie Garrett of my office.
MEMORANDUM FOR: Brian T. Pattison, Assistant Inspector General for Evaluation

FROM: Janet Golrick, Acting Deputy Assistant Secretary for Grant Programs


The Office of Environment and Energy (OEE) within the Office of Community Planning and Development has reviewed the draft evaluation report – Contaminated Sites Pose Potential Health Risks to Residents at HUD-Funded Properties. OEE offers the following comments on the draft report for consideration.

The HUD Office of Inspector General (OIG) evaluated the circumstances that resulted in the lead poisoning of residents at the West Calumet Housing Complex (WCHC) and the U.S. Department of Housing and Urban Development’s (HUD) actions to address potential contamination at other properties across the Nation. The OIG draft report indicates that between 1985 and 2016, HUD and other agencies missed multiple opportunities to recognize evidence of site contamination at WCHC. In 2017, HUD entered into a Memorandum of Understanding with the U.S. Environmental Protection Agency (EPA) to improve information sharing. Since implementation of the MOU, the EPA, HUD’s program offices, and OEE have met quarterly to identify HUD-assisted properties that may be impacted by contamination. The OIG recognizes these positive steps but states that HUD needs a more proactive approach to identifying contaminated properties and potential health risks to residents. It recommends that HUD develop strategies to identify, mitigate, and monitor potential contamination at HUD-assisted properties. OEE would like to voice its support for the work that HUD program offices and EPA have done so far and looks forward to continuing this collaboration to avoid another situation like WCHC.

OEE is concerned that Finding 2, HUD Did Not Have a Strategy To Research and Review Properties for Possible Site Contamination, is misleading. HUD has had a formal and ongoing Protocol for Addressing HUD-Assisted Properties On and/or Near Superfund Sites since 2017. Under this protocol, HUD’s Regional Environmental Officers are the primary point of contact, and they contact the EPA and arrange for site-specific meetings when notified of a site of concern. Following this protocol, OEE has held site briefings for eleven Superfund sites. To date, EPA testing at these sites has not indicated elevated contamination levels at HUD-assisted properties.

OEE would also like to clarify the inclusion of potentially contaminated sites that have not been designated as Superfund sites in its existing analysis. As the report indicates, the proximity analysis identifying potential contamination in HUD-assisted properties primarily focuses on proposed, final, and deleted Superfund sites. The report cautions that excluding non-Superfund
sites limits HUD’s knowledge of potential contamination in HUD-funded properties, and it states that
the February 2020 proximity analysis did not include any potentially contaminated non-Superfund
sites.

OEE agrees with the OIG’s comment that including non-Superfund sites in the proximity
analysis improves HUD’s knowledge of potential contamination, but it would like to correct the
OIG’s statement that the current proximity analysis excludes non-Superfund sites entirely. In
fact, the HUD-EPA MOU states that the proximity analysis will include “select non-Superfund
sites of concern” when such sites are identified by the EPA, and the February 2020 proximity
analysis includes 40 non-Superfund sites that were identified by EPA as sites of concern. OEE
has asked EPA for a clear definition of this category but intends to continue including this category
in the proximity analysis. OEE acknowledges that some non-Superfund sites that were included
in the original 2016 proximity analysis have since been removed from more recent versions.
Notably, the 2016 analysis relies data on sites with potential lead contamination from Eckel’s
List, which is not maintained by EPA. HUD and EPA have since determined that the Eckel’s List
should not be included in more recent proximity analysis, which is now based entirely on EPA data.

Should you have any questions regarding these draft evaluation report comments, please
contact Liz Zepeda, Acting Director, Office of Environment and Energy, at (202) 402-3988.
Appendixes

Appendix A – Interviews Conducted

As part of this evaluation, we conducted interviews with personnel from the U.S. Department of Housing and Urban Development (HUD), the Agency for Toxic Substances and Disease Registry, and the East Chicago Housing Authority.

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<th>Position</th>
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<tbody>
<tr>
<td>Director</td>
<td>Office of Environment and Energy</td>
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<td>Environmental specialist</td>
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<tr>
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<td>Office of Public and Indian Housing</td>
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<td>Program environmental clearance officer (2)</td>
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<tr>
<td>Director</td>
<td>Office of Public and Indian Housing, Indianapolis field office</td>
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<tr>
<td>Associate director for policy</td>
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<td>Director</td>
<td>Agency for Toxic Substances and Disease Registry, Region 5</td>
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<td>Environmental health scientist</td>
<td>Agency for Toxic Substances and Disease Registry, Region 5</td>
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<tr>
<td>Executive director</td>
<td>East Chicago Housing Authority</td>
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Appendix B – Details of Faulty Environmental Reviews at West Calumet Housing Complex (WCHC)

Public and Indian Housing’s (PIH) Indianapolis Field Office and the East Chicago Housing Authority (ECHA) Made Multiple Mistakes When Completing Environmental Reviews

As discussed in the body of the report, The City of East Chicago did not execute its responsibilities to complete and document the environmental reviews for ECHA. Instead of the City’s performing the environmental reviews, ECHA hired a consultant. In the course of our evaluation, we found multiple issues with the 2015 and 2016 part 58 environmental reviews of WCHC.

- First, PIH field office personnel incorrectly believed that a Public Housing Authority (PHA) could contract with a consultant to complete the environmental reviews for the responsible entity. This problem is described further in the body of the report.

- Second, the consultant did not have correct project descriptions for the activities that the PHA determined to be part of the project. Project descriptions should detail the (1) location so the public can locate the site; (2) purpose and need to describe what is being done and why it is necessary; (3) area, which provides the character, features, resources, and trend; and (4) activity description, which gives complete details about what will be done, the type of project, and the timeframe for implementation. Instead, the project descriptions stated that ECHA proposed using capital funds for rehabilitation and renovation program activities for its U.S. Department of Housing and Urban Development (HUD)-funded properties without specifically identifying which activities or properties would be selected. Therefore, ECHA did not fully define the locations where it would spend capital funds.

- Third, the environmental reviews did not have adequate supporting documentation for environmental determinations related to the compliance factors from 24 CFR (Code of Federal Regulations) 58.5 and 58.6. The regulations state that the environmental review records must contain verifiable source documents and relevant base data used or cited on project review documents. However, the environmental review records lacked the required documentation, or the documentation submitted did not meet the minimum requirements for 16 of the 17 compliance factors outlined in part 58, including the required documentation related to site contamination.

- Fourth, the consultant improperly used tiering when performing the 2015 and 2016 environmental reviews for ECHA’s projects. A tiered review consists of two stages – a broad-level review and subsequent site-specific reviews. In a tiered review, the responsible entity conducts a broad level of review of the compliance factors when the specific sites and activities that the PHA will address are not yet known. A site-specific review addresses the remaining compliance factors that were not covered by the broad review and are specific to the project location. A site-specific review must be completed before HUD funds are committed to the project. However, site-specific reviews were not completed, even though the project locations were known from the beginning, as
documented in the environmental review records. Therefore, the consultant should not have used the tiering approach but should have correctly addressed all of the compliance factors.
Appendix C – Acknowledgements

This report was prepared under the direction of Brian T. Pattison, Assistant Inspector General for Evaluation; Paul H. Bergstrand, Director of the Program Evaluations Division; Lindsay Clarke Brubaker, Supervisory Evaluator; and Kaitlyn Large, Supervisory Evaluator. The Office of Evaluation staff members who contributed are recognized below.

**Major Contributors**
Christina Moreno, Evaluator

**Other Contributors**
Robyn Berkenbilt, Senior Evaluator
Claudia Estrada Eames, Senior Evaluator
Kayleigh Karlovits, Senior Evaluator
## Appendix D – Acronyms and Abbreviations

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<th>ACRONYM</th>
<th>DEFINITION</th>
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<tr>
<td>ATSDR</td>
<td>Agency for Toxic Substances and Disease Registry</td>
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<td>CERCLA</td>
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<td>MOU</td>
<td>memorandum of understanding</td>
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<td>National Environmental Policy Act of 1969</td>
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<td>National Priorities List</td>
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<tr>
<td>PHA</td>
<td>public housing agency</td>
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<tr>
<td>WCHC</td>
<td>West Calumet Housing Complex</td>
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The Office of Inspector General is an independent and objective oversight agency within the U.S. Department of Housing and Urban Development. We conduct and supervise audits, evaluations, and investigations relating to the Department’s programs and operations. Our mission is to promote economy, efficiency, and effectiveness in these programs while preventing and detecting fraud, abuse, and mismanagement.

Report fraud, waste, and mismanagement in HUD programs and operations by completing this online form: https://www.hudoig.gov/hotline/report-fraud
Calling the OIG hotline: 1-800-347-3735

Whistleblowers are protected by law. https://www.hudoig.gov/fraud-prevention/whistleblower-protection

Website https://www.hudoig.gov/