

# A CRISIS SET TO REPEAT ITSELF: IMPROVING REGULATION FOLLOWING THE CATASTROPHE OF THE WEST CALUMET HOUSING COMPLEX

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## I. INTRODUCTION

### A. *The Issue*

The West Calumet Housing Complex (WCHC), public housing located in East Chicago, Indiana, posed severe environmental and health risks to its residents from the time the project was built. In April 2018, the complex was torn down due to arsenic and lead contamination which posed a risk to residents' health.<sup>1</sup> Over the course of the complex's lifespan at least ninety-five children were confirmed to have elevated blood lead levels and likely suffered adverse health effects.<sup>2</sup> Prior to demolition, there were numerous opportunities to prevent residents' exposure decades sooner, especially given the complex's land use history as being used for heavy industry and its proximity to contaminated sites.<sup>3</sup> Although the destruction of the WCHC may seem like a resolution to the long-drawn-out crisis, this crisis is set to repeat across the country.

The complex's story makes clear the numerous problems with how Department of Housing and Urban Development (HUD) handles environmental contamination of public housing. There are some safeguards that exist today—primarily federal environmental statutes—which would prevent the construction of public housing on contaminated land. Yet these safeguards did not ensure the contamination at the WCHC was discovered in a timely manner. The absence of a system to check for contamination in older projects means there are likely many current public housing residents being unknowingly exposed to hazardous substances. In February 2020, the U.S. Environmental Protection Agency (EPA) and HUD found that more than 2,000 public and project-based housing developments are located within one mile of the

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1. Samantha Horton, *Demolition Begins at Contaminated East Chicago Public Housing Complex*, WFYI INDIANAPOLIS (Apr. 2, 2018), <https://www.wfyi.org/news/articles/demolition-begins-at-contaminated-east-chicago-public-housing-complex> [<https://perma.cc/9LMM-AUSJ>].

2. Stephanie Gosk & Corky Siemaszko, *West Calumet Housing Complex Faces Wrecking Ball Due to High Lead Levels*, NBC NEWS (Sept. 3, 2016, 7:59 PM), <https://www.nbcnews.com/news/us-news/west-calumet-housing-complex-faces-wrecking-ball-due-high-lead-n640766> [<https://perma.cc/5NSP-9NKH>]; see also AGENCY FOR TOXIC SUB. & DISEASE REGISTRY, U.S. DEP'T OF HEALTH & HUM. SERVS., EXPOSURE INVESTIGATION 4, 6 (May 7, 1998).

3. OFF. OF INSPECTOR GEN., REPORT NO. 2019-OE-0003, CONTAMINATED SITES POSE POTENTIAL HEALTH RISKS TO RESIDENTS AT HUD-FUNDED PROPERTIES 1, 1 (Feb. 14, 2021); see also U.S. ENV'T PROT. AGENCY, 315-RICO-053J, USS LEAD FEASIBILITY STUDY REPORT 1, 1-6 (June 2012), <https://semsub.epa.gov/work/05/941442.pdf> [<https://perma.cc/4Y9J-Z5ZF>] [hereinafter Feasibility Study Report].

country's most hazardous waste sites and where human exposure was not under control.<sup>4</sup>

To prevent the WCHC's story from repeating, HUD must update and strengthen its regulations to promote communication and cooperation between agencies, the local public housing authority (PHA), and residents. One way to do this would be to amend HUD regulations to ensure that environmental reviews are performed at all public housing within one mile of hazardous waste sites. In addition, the inclusion of the environmental reviews' finding should be made a mandatory reporting requirement with each PHAs' annual plan. This would improve HUD oversight, lead to sanctions and fines for PHAs out of compliance, and ensure the results are communicated to residents.

Both the EPA and HUD have committed to creating healthy environments and communities,<sup>5</sup> but the failure of these agencies to protect residents of public housing must be rectified. Given the various limitations associated with civil litigation actions in environmental contaminant cases, a statutory scheme must be adopted by the state of Indiana or the federal government, to provide residents relief with fewer barriers. This Note suggests using the National Childhood Vaccine Injury Act to create an analogous no-fault compensation scheme that, unlike the tort system, would allow harmed residents to recover easily and with certainty. The exposure of tens of thousands of families to hazardous chemicals arising from living in contaminated public housing,<sup>6</sup> and the resultant health impacts they will suffer, is imminent and likely. Thus, the solutions advocated for in this Note must be realized so that residents of public housing harmed by contamination in the future will not suffer in the same ways those at the WCHC did.

### B. Roadmap

This Note demonstrates, through the drawn-out discovery and cleanup of lead and arsenic contamination at the West Calumet Housing Complex, the failure of HUD and the EPA to alert and move affected residents. To understand multiple factors that contributed to a public housing complex being built on a contaminated site and then going unaddressed while close to a hundred children were exposed to lead,<sup>7</sup> Section II provides an overview of the WCHC's history.

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4. OFF. OF INSPECTOR GEN., *supra* note 3, at 16.

5. *FY 2022-2026 HUD Strategic Plan*, U.S. DEP'T OF HOUS. & URB. DEV., <https://www.hud.gov/HUD-FY22-26-Strategic-Plan-Focus-Areas> [<https://perma.cc/D9WT-4KC5>] (last visited Nov. 20, 2022); *see also EPA Strategic Plan*, EPA U.S. ENV'T PROT. AGENCY (June 13, 2022), <https://www.epa.gov/planandbudget/strategicplan> [<https://perma.cc/6P4C-RKKH>].

6. Emily Coffey et al., *Poisonous Homes the Fight for Environmental Justice in Federally Assisted Housing*, SHRIVER CTR. ON POVERTY L. 1, 2 (June 2020), [https://www.povertylaw.org/wp-content/uploads/2020/06/environmental\\_justice\\_report\\_final.pdf](https://www.povertylaw.org/wp-content/uploads/2020/06/environmental_justice_report_final.pdf) [<https://perma.cc/S966-PVHE>].

7. Gosk & Siemaszko, *supra* note 2; *see also* AGENCY FOR TOXIC SUB. & DISEASE REGISTRY, *supra* note 2, at 6.

An overview of the relevant environmental laws will also be provided, to illuminate which safeguards existed and when. To show the scope and gravity of the contamination, Section II also examines the WCHC's situation more broadly and provides details on health impacts and the make-up of the greater community.

Section III analyzes the problems posed by the contamination at the WCHC and highlights the fact that action must be taken since the same story is likely to play out again in other parts of the country. Most importantly, this section provides support for why and how these problems should be addressed. It offers solutions, focusing on two key aspects that must be addressed. First, HUD must close gaps in agency rules by expanding lead testing to include all surface types and more of the toxins most found at hazardous sites near public housing. In addition, HUD must require that environmental assessments be performed at public housing near contaminated sites and reported to HUD and residents by PHAs as a part of their yearly plans. Second, legislative bodies must adopt a recourse for impacted public housing residents who have been exposed and harmed by contaminated public housing. The section details how this proposed compensation system should be structured so that it would guarantee easy and certain compensation to residents, without needing to prove fault, while also balancing public policy considerations. Finally, Section IV examines the barriers facing the solutions proposed in this Note and the opportunities there might be for progress in the future.

## II. BACKGROUND INFORMATION

### A. *The WCHC's Complicated History*

To understand the problems presented by the WCHC this and the following sub-sections will give context to WCHC's history and setting. Understanding the details of what happened at one such site, will help show what has likely occurred and will soon surface at many other public housing sites. The WCHC opened in 1972 and consisted of 107 residential buildings with a total of 346 units.<sup>8</sup> During the summer of 2016, the EPA notified residents it had found lead in the soil with thirty times more lead than is considered safe.<sup>9</sup> At that time, 1,100 tenants lived in the WCHC.<sup>10</sup> Of these 1,100 tenants, 680 were children and eighty five of those children had elevated levels of lead in their blood.<sup>11</sup> In fact, compared to children living in other parts of East Chicago, children living

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8. OFF. OF INSPECTOR GEN., *supra* note 3, at 1.

9. Gosk & Siemaszko, *supra* note 2; see also Rosa Flores, *Lead levels in Indiana town's yard 6 times higher than safe*, CNN (Sept. 1, 2016, 7:30 AM), <https://www.cnn.com/2016/08/30/health/indiana-lead-contamination> [<https://perma.cc/K8N2-YKGF>] (noting that the most contaminated yards tested for lead levels 227 times greater than the EPA's safe lead limit and 135 times greater than the EPA's safe arsenic limit).

10. Gosk & Siemaszko, *supra* note 2.

11. OFF. OF INSPECTOR GEN., *supra* note 3, at 13.

in the WCHC had nearly a three times greater chance of having elevated blood lead levels.<sup>12</sup>

The EPA's finding of contamination shocked residents in multiple ways. Given how easily children and residents can be exposed to lead, the extremely high levels of lead and arsenic in the soil were frightening to residents. Exposure can happen simply by tracking lead particles into one's home after walking over the soil, or by playing in one's yard, as children often do.<sup>13</sup> Additionally, residents only learned of the test results more than eighteen months after the EPA had conducted sampling.<sup>14</sup> The EPA began sampling in November of 2014 and received the preliminary results between May and October 2015.<sup>15</sup> The final data, however, was not shared with the City of East Chicago until May 2016 and then with the residents shortly after.<sup>16</sup> Because lead can cause irreversible damage to one's body and children are the most vulnerable to its effects,<sup>17</sup> residents believe they should have received the results sooner.

Yet, this was just one instance where residents could have been warned earlier. The WCHC's location and history clearly foreshadowed its potential contamination, but the dangers went unrecognized. The site the WCHC was built atop was formerly owned and operated by Anaconda Lead Products and the International Smelting and Refining Company.<sup>18</sup> These companies manufactured, refined, and stored lead primarily for use in lead paint.<sup>19</sup> Anaconda Lead Products was in operation from at least 1938 to 1965,<sup>20</sup> and the International Smelting and Refining Company facility stopped its operations not long after, in 1968.<sup>21</sup> HUD's records show that the local PHA, the East Chicago Housing Authority (ECHA), selected the WCHC's site this same year.<sup>22</sup> Local PHAs are government housing agencies, established under State law,<sup>23</sup> that

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12. *Id.*

13. *Lead in Soil*, CDC CTR. FOR DISEASE CONTROL & PREVENTION (May 2, 2022), <https://www.cdc.gov/nceh/lead/prevention/sources/soil.htm> [<https://perma.cc/9VJ6-LEFW>].

14. Flores, *supra* note 9.

15. Sarah Reese, *East Chicago officials accused EPA of 'breaking trust' in lead cleanup*, NWI.COM (Mar. 30, 2018), [https://www.nwitimes.com/news/local/lake/east-chicago-officials-accused-epa-of-breaking-trust-in-lead-cleanup/article\\_f5980b21-069c-5fd4-8890-f209363bb296.html](https://www.nwitimes.com/news/local/lake/east-chicago-officials-accused-epa-of-breaking-trust-in-lead-cleanup/article_f5980b21-069c-5fd4-8890-f209363bb296.html) [<https://perma.cc/EM93-FLCF>].

16. Letter from Anthony Copeland, Mayor, Cty. of E.Chi, to Gina McCarthy, EPA Adm'r, U.S. Env't Prot. Agency (July 14, 2016), [http://media.wix.com/ugd/d9c0d6\\_25cb9907943341e2bfe37ea6e8136ae7.pdf](http://media.wix.com/ugd/d9c0d6_25cb9907943341e2bfe37ea6e8136ae7.pdf) [<https://perma.cc/WB5J-3ZVX>]; *see also* Flores, *supra* note 9.

17. OFF. OF INSPECTOR GEN., *supra* note 3, at 2-3.

18. *Id.* at 1.

19. *Id.*

20. Sara Burnett & Jason Keyser, *Lead Crisis in Housing Project was Actually no Surprise*, KSL.COM (Sept. 23, 2016, 12:20 AM), <https://www.ksl.com/article/41587068> [<https://perma.cc/SM4G-P843>].

21. Mark Johnson et al., *Health Consultation U.S. Smelter and Lead Refinery*, U.S. DEP'T OF HEALTH & HUM. SERV. at 2, 4 (Aug. 16, 2018), [https://www.atsdr.cdc.gov/HAC/pha/USSmelterandLeadRefinery/US\\_Smelter\\_Lead\\_Refinery\\_HC\\_2018-508.pdf](https://www.atsdr.cdc.gov/HAC/pha/USSmelterandLeadRefinery/US_Smelter_Lead_Refinery_HC_2018-508.pdf) [<https://perma.cc/ZS D5-DK9Z>].

22. OFF. OF INSPECTOR GEN., *supra* note 3, at 8.

23. IND. CODE § 36-7-18-4 (2021).

provide low-income families and individuals access to public housing.<sup>24</sup> PHAs assist HUD in carrying out its policy of remedying unsafe housing conditions and the shortage of decent, safe, and affordable housing.<sup>25</sup> HUD, in turn, provides federal funding to PHAs to develop and manage public housing.<sup>26</sup> It also grants responsibility and flexibility in administering HUD programs to PHAs that perform well.<sup>27</sup>

Across the street and directly north of the WCHC site, was the U.S. Steel (USS) Lead facility.<sup>28</sup> This facility served as a lead refinery from 1920 to 1985.<sup>29</sup> A public health assessment by the Agency for Toxic Substances and Disease Registry (ATSDR) has since found that lead-contaminated air created by the site was a hazard to human health from 1920 to 1985.<sup>30</sup> Since the WCHC site was downwind of the USS Lead facility, the ATSDR also concluded that lead from the air likely settled onto the complex's lawn.<sup>31</sup> Today, lead particulates are regulated by the Clean Air Act (CAA), which authorized the EPA to establish National Ambient Air Quality Standards to protect public health and the environment.<sup>32</sup> While the CAA was passed in 1970,<sup>33</sup> lead was not initially recognized as an air pollutant until the Natural Resource Defense Council and other plaintiffs brought suit force the EPA to list lead under §108 of the CAA.<sup>34</sup> Since the EPA's administrator had determined that lead had an adverse effect on public health and its presence in the air resulted from numerous and diverse mobile or stationary sources, the plaintiffs prevailed,<sup>35</sup> and the EPA subsequently set primary and secondary air quality standards for lead in 1978.<sup>36</sup> Thus, at the very least, the USS Lead facility had been emitting lead-laden air onto the WCHC property for fifty-eight years, with six of those years overlapping with the time when the first residents lived in the WCHC.

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24. IND. CODE § 36-7-18-2 (2021); *see also Public Housing Development*, U.S. DEP'T HOUS. & URBAN DEV., <https://www.hud.gov/programdescription/phd> [<https://perma.cc/MDT7-RFZR>] (last visited Feb. 23, 2023).

25. 42 U.S.C. § 1437.

26. *Id.*; *see also* Kate Walz & Emily Coffey, *Public Housing, Environmental Health, and Racism: The West Calumet Story*, STRATEGIES FOR HEALTH JUST.: LESSONS FROM THE FIELD, at 9, 10 (Nov. 2018) (noting that “[i]n 1970, the ECHA received a \$13.4 million grant from HUD to build the Complex”).

27. 42 U.S.C. § 1437.

28. Walz & Coffey, *supra* note 26, at 10; *see also* OFF. OF INSPECTOR GEN., *supra* note 3, at 1.

29. MICHAEL BROOKS & DAVID MELLARD, AGENCY FOR TOXIC SUB. & DISEASE REGISTRY, PUB. HEALTH ASS'T 1, 2-3 (Jan. 27, 2011), <https://www.atsdr.cdc.gov/hac/pha/ussmelterandleadrefinery/ussleadphablue01272011.pdf> [<https://perma.cc/24QP-47PV>].

30. *Id.*

31. OFF. OF INSPECTOR GEN., *supra* note 3, at 1.

32. 42 U.S.C. § 7409.

33. *Id.*

34. Nat. Res. Def. Council, Inc. v. Train, 411 F. Supp. 864, 867 (S.D.N.Y. 1976).

35. *Id.* at 870.

36. National Primary and Secondary Ambient Air Quality Standards for Lead, 43 Fed. Reg. 46246 (Oct. 5, 1978).

When the WCHC was built in the early 1970s, and later opened in 1972,<sup>37</sup> not only was its air contaminated; but the ECHA constructed it on land that had been used to refine lead and arsenic for thirty years.<sup>38</sup> In 1968 when the ECHA was selecting the WCHC site, the link between lead and its adverse health effects were known generally and scientists were collecting data pointing to a clear consensus.<sup>39</sup> Yet there was little wider societal concern about childhood lead poisoning.<sup>40</sup> “Many considered lead poisoning to be a problem that affected only poor children in slum dwellings.”<sup>41</sup> To further illustrate this conundrum: although lead was recognized as a danger in high-dose workplaces during the industrial revolution, lead was commonplace in gasoline and paint.<sup>42</sup> While the science took time to develop,<sup>43</sup> it also took far too much time for the federal government to act on that science. Chicago began the first lead poisoning screening programs for children in 1966,<sup>44</sup> though the Chicago program likely did not extend to any cities in Indiana, despite their proximity. Records show that the ECHA knew locations for public housing projects were limited.<sup>45</sup> The ECHA also knew the site would likely have to be situated around industry.<sup>46</sup> Early deeds show the land was transferred from the International Smelting and Refining Company to another company that manufactured lead and eventually to the Blaw-Knox Company,<sup>47</sup> which used lead to craft steel products. So, while the ECHA might have known from the deeds that this land belonged to multiple companies involved in lead smelting, refining, and manufacturing, it is unclear whether the ECHA knew the site posed a danger. The ECHA might not have thought children in their proposed project would be at risk of lead poisoning because the housing would be new and remove children from “slum dwellings” or they may not have considered lead poisoning at all given the lack of general public concern.<sup>48</sup> Although the Lead-Based Paint Poisoning Prevention Act

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37. OFF. OF INSPECTOR GEN., *supra* note 3, at 1.

38. Burnett & Keyser, *supra* note 20.

39. HERBERT L. NEEDLEMAN, HUMAN LEAD EXPOSURE 27-28 (1992).

40. *Id.*

41. *Id.*

42. Michele Augusto Riva et al., *Lead Poisoning: Historical Aspects of a Paradigmatic “Occupational and Environmental Disease”*, 3(1) SAFETY & HEALTH WORK 11, 13-14 (2012).

43. Carrie Arnold, *The Man Who Warned the World About Lead*, NOVA (May 31, 2017), <https://www.pbs.org/wgbh/nova/article/herbert-needleman/> [https://perma.cc/H3F4-XEU2] (addressing how lead was suspected in 1943 to have long-lasting effects on children but was confirmed by studies between 1972 and 1979).

44. NEEDLEMAN, *supra* note 39.

45. *Public Housing Sites Are Scarce*, CHI. TRIB. (Oct. 6, 1966), <https://chicagotribune.com/newspapers.com/image/196692244/?terms=Public%20housing%20sites%20are%20scarce&match=1> [https://perma.cc/HJW8-37SQ].

46. *Id.*

47. Ex. A at 1-26, *Mabry v. Cty. of E. Chi.*, No. 2:16-CV-402-JVB-JEM (N.D. Ind. Oct. 20, 2021), <https://www.indianaenvironmentalreporter.org/content/posts/20210331-decades-of-missed-opportunities-exposed-multiple-generations-of-east-chicago-residents-to-lead-contamination-federal-report-finds/exhibita.pdf> [https://perma.cc/8JLK-P4SM].

48. NEEDLEMAN, *supra* note 39.

banned the use of lead paint in public housing in 1971,<sup>49</sup> this does not necessarily mean the ECHA was aware of the dangers of lead within soil and air, though in hindsight the pieces were there for ECHA to have alarm bells sound.

Today, in compliance with the National Environmental Policy Act (NEPA), HUD must perform an environmental assessment when a PHA proposes constructing new public housing, rehabilitating a property, or changing the land use of a property.<sup>50</sup> While NEPA will be discussed in more detail in Section IV of this Note, the environmental assessment must, in part, examine how the environment may affect the project.<sup>51</sup> It would likely unveil contamination or, at least, evidence pointing to contamination. Here, ECHA's decision to build the WCHC and where to build it was approved by HUD prior to the adoption of the NEPA in 1970.<sup>52</sup> Had NEPA been enacted, an environmental assessment would have been required as part of the HUD approval process.<sup>53</sup>

However, NEPA was not the only environmental statutory safeguard that was not in place when the ECHA selected the WCHC site and built upon it. The Resource Conservation and Recovery Act (RCRA) of 1976 gives the EPA the authority to control the generation, transportation, treatment, storage, and disposal of hazardous waste.<sup>54</sup> RCRA primarily "focuses on active and future facilities and generally does not address abandoned or historical sites."<sup>55</sup> The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 fills this gap by creating a path to hold statutorily defined parties responsible for cleaning up contaminated sites.<sup>56</sup> CERCLA established a trust fund, often referred to as the "Superfund," to clean-up hazardous-waste sites as well as releases of contaminants into the environment.<sup>57</sup> The Superfund can be used by federal and state governments to finance cleanup actions.<sup>58</sup> Under CERCLA the EPA must create a list, known as the National Priorities List (NPL), which prioritizes sites across the nation with known or threatened releases "of hazardous substances, pollutants, or contaminants."<sup>59</sup> These sites are then often referred to as "Superfund sites." Placing a site on the NPL, then serves as a necessary precursor to the federal and state governments being able

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49. 42 U.S.C. § 4831 (2022).

50. 24 C.F.R. § 50.1 (2023); 24 C.F.R. § 50.17 (2023); 24 C.F.R. § 50.20 (2023).

51. *Environmental Review*, HUD EXCH., <https://www.hudexchange.info/programs/environmental-review/> [https://perma.cc/R5YN-686B] (last visited Feb. 23, 2023).

52. 42 U.S.C. § 4321 (1970); *see also* Burnett & Keyser, *supra* note 20.

53. 24 C.F.R. §§ 50.17, 50.3 (2023).

54. 42 U.S.C. § 6902 (1984).

55. *History of the Resource Conservation and Recovery Act (RCRA)*, EPA U.S. ENV'T. PROT. AGENCY (Dec. 12, 2016), [https://19january2017snapshot.epa.gov/rcra/history-resource-conservation-and-recovery-act-rcra\\_.html#:~:text=RCRA%20focuses%20only%20on%20active,%20E2%80%93%20commonly%20known%20as%20Superfund](https://19january2017snapshot.epa.gov/rcra/history-resource-conservation-and-recovery-act-rcra_.html#:~:text=RCRA%20focuses%20only%20on%20active,%20E2%80%93%20commonly%20known%20as%20Superfund) [https://perma.cc/3VUT-L5A5].

56. 42 U.S.C. §§ 9605, 9607 (2002).

57. 42 U.S.C. § 9607 (2002).

58. 42 U.S.C. § 9605 (2002).

59. *Id.*; *see also* 40 C.F.R. § 300.425 (2022).

to obtain financial support for cleanup from parties deemed responsible for contaminating the site.<sup>60</sup>

Today, NEPA, RCRA, CERCLA, and the CAA serve as safeguards to control environmental pollution and protect the health of communities by verifying which substances are harmful and making public information about which hazardous substances are being released, where, and in what quantities.<sup>61</sup> This information now serves as a tool that HUD can use when conducting environmental assessments or due diligence.<sup>62</sup> When the WCHC was built in the early 1970s, and later opened in 1972, the ECHA and HUD did not have the statutory safeguards of NEPA or CERCLA to alert them to the danger of lead contamination, to require them to conduct environmental assessments, or to incentivize them to avoid potential liability. Given this historical context, the ECHA and HUD likely did not have bad intentions in building the WCHC on top of land heavily connected to lead refining. Nor would the ECHA or HUD have had reason to consider the danger until the science supporting the dangers of lead and arsenic was developed and the above environmental regulations were more established.

Over time the science proving the dangers of lead and arsenic became accepted and environmental statutes were adopted. Despite statutory and regulatory safeguards to uncover and address the contamination at the WCHC, discovery of the contamination did not come until a long time afterwards. As HUD policies for conducting environmental assessments were established, field inspections, research into historic uses, records searches, and tools using data gathered from environmental statutory schemes should have hinted at the contamination at the WCHC. Nevertheless, because the complex was already built, there was nothing to trigger such investigation until 2003 when ECHA proposed a rehabilitation of the property.<sup>63</sup>

### *B. The Long Road to Discovering and Resolving the WCHC Contamination*

The first call for action regarding environmental concerns came in 1985 after the Indiana Board of Health found USS Lead in violation of state law and responsible for lead contamination in the area surrounding the refinery.<sup>64</sup> On November 21, 1985, a local representative requested that the EPA initiate a hazardous waste removal action under CERCLA.<sup>65</sup> Despite this, it was not until

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60. 40 C.F.R. § 300.425 (2022).

61. *See generally* 42 U.S.C. § 4321; 42 U.S.C. § 6902; 42 U.S.C. § 9601; 42 U.S.C. § 7401.

62. Paul Mohr et al., *Evaluating Site Contamination for HUD Projects*, HUD OFF. OF ENV'T & ENERGY (Aug. 22, 2012), [https://www.hud.gov/sites/documents/CPD\\_ENV\\_SLIDES8-22.PDF](https://www.hud.gov/sites/documents/CPD_ENV_SLIDES8-22.PDF) [<https://perma.cc/5R3E-9VDF>].

63. Feasibility Study Report, *supra* note 3, at 11.

64. Feasibility Study Report, *supra* note 3, at 6.

65. Letter from Peter Visclosky, Rep., Cong. of the U.S., to Valdis Adamkus, Reg'l Adm'r, U.S. Env't Prot. Agency (Nov. 21, 1985), <https://bloximages.chicago2.vip.townnews.com/>

1992 that the EPA proposed adding the USS Lead site to the NPL,<sup>66</sup> which would allow the state or federal government to recover cleanup costs. In 1993, the EPA pursued cleanup using an alternative method, entering an Administrative Order of Consent (AOC) with USS Lead.<sup>67</sup> Although the AOC required remediation of the facility under RCRA, the cleanup did not extend to residential areas around the site.<sup>68</sup> The extent of the surrounding contamination would not be unveiled until testing occurred in the mid-1990s.<sup>69</sup> Regardless, the land use history and proximity to the USS Lead site should have indicated that immediate testing was necessary.

As part of the proposed NPL listing, CERCLA required the ATSDR to conduct a health assessment and provide results to the EPA and the state of Indiana.<sup>70</sup> In 1994, ATSDR found that lead soil contamination not only posed a danger at the USS Lead site, but was also a hazard to those living within a half mile north and northeast of the facility, which encompassed the WCHC.<sup>71</sup> It also recommended that the Indiana State Department of Health continue testing local residents' blood lead levels.<sup>72</sup> In the years following the ATSDR's health assessment, testing of both lead blood levels and surface soil levels in the West Calumet area continued.

Even before the turn of the century, reports indicated abnormal lead levels in throughout the West Calumet community.<sup>73</sup> A 1997 lead screening conducted jointly by the East Chicago Health Department, Indiana State Health Department, and the ATSDR found that ten out of thirty children from the WCHC and surrounding neighborhoods had lead blood levels at alarmingly high levels.<sup>74</sup> The report attributed the exposure to lead-based paint and soil contamination as possible sources.<sup>75</sup> However, a 1998 exposure investigation report by the U.S. Department of Health and Human Services concluded soil samples from the area did not contain lead "at levels of health concern."<sup>76</sup> This conclusion was not only inconsistent with the findings of the 1997 report, but it was also contrary to the 1998 report's own data.<sup>77</sup> It noted there were dangerous

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nwitimes.com/content/tncms/assets/v3/editorial/9/20/920d1e8a-8c87-5e9e-8e36-2a5946195bf7/57c9fffd1728.pdf.pdf [https://perma.cc/4QYJ-AQAZ].

66. News Release, US. Env't Prot. Agency, EPA Proposes 2 Midwest Sites for Superfund List (Feb. 7, 1992), <https://bloximages.chicago2.vip.townnews.com/nwitimes.com/content/tncms/assets/v3/editorial/e/97/e9708b38-aeeb-522f-b214-c69f8add8e52/57c87f287cd67.pdf.pdf> [https://perma.cc/JY44-PN4D].

67. Feasibility Study Report, *supra* note 3, at 6.

68. Feasibility Study Report, *supra* note 3, at 6.

69. BROOKS & MELLARD, *supra* note 29, at 14.

70. 42 U.S.C. § 9604 (2018).

71. BROOKS & MELLARD, *supra* note 29, at 14.

72. *Id.*

73. AGENCY FOR TOXIC SUB. & DISEASE REGISTRY, *supra* note 2, at 6.

74. *Id.*

75. *Id.*

76. *Id.*

77. *Id.*

soil lead levels an elementary school just across the street from the WCHC and that surface soil lead level samples were not actually taken in the vicinity of the tested children's homes.<sup>78</sup> The 1998 report was also inconsistent with additional data from 1990 to 1997, which indicated that the West Calumet area had higher blood lead levels compared to average state-wide data.<sup>79</sup>

Starting in 2003, the ECHA rehabilitated the WCHC property, which triggered requirements to conduct environmental reviews.<sup>80</sup> As discussed earlier, this should have uncovered the contamination; however, the reviews were not conducted properly.<sup>81</sup> This allowed the ECHA to complete rehabilitation projects between 2003 and 2016 without discovering the site contamination.<sup>82</sup> In 2003, the EPA conducted soil sampling focused on 83 residential properties near the WCHC.<sup>83</sup> More than half were found to have soil exceeding the safe level of 400mg/kg of lead for residential soils.<sup>84</sup> Just below this level, from 150mg/kg to 400mg/kg, children should wash their hands when playing outside and gardening practice must be modified to produce safe food.<sup>85</sup> Above 400mg/kg abatement or remediation actions must be conducted and children should be restricted or prohibited from playing in the area.<sup>86</sup> The high lead soil levels led to the cleanup of fifteen residential properties and other nearby industrial sites also contaminated with lead.<sup>87</sup> The history of industrial land use, alarming child blood lead levels, and remediation of surrounding areas should have prompted earlier action. Instead, soil testing did not occur on the WCHC property until after it became a CERCLA Superfund site six years later.<sup>88</sup>

Though the USS Lead site had been pending placement on the NPL since it was first proposed in 1992, it was not until April 2009 that the EPA placed the tracts of land containing the former USS Lead facility, as well as the WCHC, on the NPL.<sup>89</sup> From December 2009 to September 2010, an EPA contractor collected soil samples for lead and arsenic across the tract of land containing the WCHC, known as operating unit 1 (OU1) of the USS Lead Superfund site.<sup>90</sup> Yet

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78. *Id.*

79. *Id.* at 5.

80. OFF. OF INSPECTOR GEN., *supra* note 3, at 11; *see also* 24 C.F.R. §§ 50.3, 50.17 (2023).

81. OFF. OF INSPECTOR GEN., *supra* note 3, at 11-12.

82. *Id.* at 11-13.

83. Feasibility Study Report, *supra* note 3, at 6.

84. *Id.*

85. Richard Stehouwer & Kirsten Macneal, *Lead in Residential Soils: Sources, Testing, and Reducing Exposure*, PENNSTATE EXTENSION (Sept. 15, 2010), <https://extension.psu.edu/lead-in-residential-soils-sources-testing-and-reducing-exposure> [<https://perma.cc/5AJV-BUPK>].

86. *Id.*

87. Feasibility Study Report, *supra* note 3, at 7.

88. OFF. OF INSPECTOR GEN., *supra* note 3, at 10.

89. Memorandum from Douglas Ballotti, Acting Dir., Superfund Div., to Mathy Stanislaus, Assistant Adm'r, Off. of Land & Emergency Mgmt. 8 (Oct. 24, 2016), <https://semspub.epa.gov/work/05/929998.pdf> [<https://perma.cc/5JDV-9SNS>].

90. Feasibility Study Report, *supra* note 3, at 8.

it was not until 2012, within a feasibility study report, that the EPA summed up the finding of the 2009-2010 sampling.<sup>91</sup> All samples taken in the WCHC exceeded the safe level for lead.<sup>92</sup> Furthermore, the WCHC samples were found to have the highest arsenic and lead concentrations in all of OU1.<sup>93</sup> Despite this finding, WCHC residents, the East Chicago Housing Authority, and the city of East Chicago were not directly notified of the danger by the EPA.

The EPA's 2012 Record of Decision (ROD) clearly states that the yards in OU1 were contaminated "with lead and arsenic at levels that pose a threat to human health via ingestion, inhalation, and direct contact."<sup>94</sup> The ROD also determined a remedy or cleanup plan to address the contamination.<sup>95</sup> Thus, at the time the EPA conducted additional sampling in 2014, it was aware of the threat to human health and primarily conducted additional sampling to cover properties "[with]in the public housing area that were not previously tested."<sup>96</sup> As mentioned earlier, it was not until 2016 that the City of East Chicago and WCHC residents were notified of the complex's high lead and arsenic soil levels by the EPA.<sup>97</sup>

Upon receiving the 2014 data from the EPA, East Chicago's mayor, Anthony Copeland, responded to the agency blaming it for the crisis at the WCHC and specifically pointing to its inadequate cleanup plan, slow response, and lack of communication.<sup>98</sup> Copeland also requested that before any remediation took place that WCHC residents be relocated first.<sup>99</sup> Following the request, HUD provided \$1.9 million in rent vouchers and \$400,000 for relocations specialists to assist WCHC residents in finding new housing.<sup>100</sup> Although HUD gave WCHC residents assistance in finding new housing, their options were limited.<sup>101</sup> To expand residents' options, HUD said residents could move to Illinois, but moving states could cost residents in other ways, such a

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91. *Id.* at 5-6, 8.

92. *Id.* at 8-9.

93. *Id.* at 8.

94. U.S. ENV'T PROT. AGENCY REGION 5, USS LEAD RECORD OF DECISION 1, 4 (Nov. 2012), <https://semspub.epa.gov/work/05/446987.pdf> [<https://perma.cc/6P9F-AVEL>].

95. *Id.*

96. Fact Sheet, *Agreement Helps Start Project to Clean Up Contaminated Soil*, U.S. ENV'T PROT. AGENCY (Nov. 2014), <https://semspub.epa.gov/work/05/919976.pdf> [<https://perma.cc/3DB6-A5SL>].

97. Gosk & Siemaszko, *supra* note 2; *see also* Letter from Copeland, *supra* note 16.

98. Letter from Copeland, *supra* note 16; *see also* Letter from Anthony Copeland, Mayor, City. of E. Chi., to Robert Kaplan, EPA Region 5 Acting Reg'l Adm'r (June 16, 2016), [http://media.wix.com/ugd/d9c0d6\\_cd6fc9810bdb4bf089c75fe00d3cf078.pdf](http://media.wix.com/ugd/d9c0d6_cd6fc9810bdb4bf089c75fe00d3cf078.pdf) [<https://perma.cc/3DB6-A5SL>].

99. Letter from Copeland, *supra* note 16.

100. Flores, *supra* note 9.

101. Tom Davies, *Dozens of Families Remain At Lead-tainted East Chicago Complex*, WBEZCHICAGO (Mar. 31, 2017, 12:07 PM), <https://www.wbez.org/stories/dozens-of-families-remain-at-lead-tainted-east-chicago-complex/64812a26-02cf-4931-8e52-af892e3e94b3> [<https://perma.cc/96XW-MR7H>] (noting that there are "limited rental options in the formerly industrial area [and] landlords who will not accept government housing vouchers").

losing their local communities, jobs, and Medicaid coverage.<sup>102</sup> It was only after residents were moved out and the demolition of the complex had been approved that HUD completed its own environmental site assessment, further confirming the incredibly high soil concentrations of lead and arsenic.<sup>103</sup> The EPA has since said that it is working to institute processes that, in situations like these, would involve using preliminary data to spur immediate action, rather than waiting until the data is fully assessed.<sup>104</sup>

The story of the WCHC encapsulates the lack of communication and cooperation between HUD and the EPA, as well as between those agencies, the ECHA, and residents. The failures by numerous parties in varying degrees over almost half a century since the complex was built, have resulted in challenges in holding culpable parties accountable. Most significantly, the crisis demonstrated the lack of safeguards protecting residents of public housing and requires solving the problems that have been made apparent. Thus, the first solution this Note proposes is to make environment reviews required at public housing complexes within one mile of a Superfund site and to include the results within each PHAs' annual plan. Expanding HUD regulation so that environmental reviews do not overlook the surfaces children play on and the types of contaminants most often found at Superfund sites, will also close additional gaps.

### *C. Understanding the WCHC Within the Broader Context*

Lake County hosts “three of the nation’s largest integrated steel mills, one of the world’s largest oil refineries, several coal-fired power plants, and countless industrial facilities.”<sup>105</sup> In addition to the USS Lead site, there are six active Superfund sites within Lake County,<sup>106</sup> many of which have been the source of consent decrees and litigation. The EPA’s toxic release inventory (TRI) program shows that in 2021 there were 97 different toxic chemicals

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102. *Id.*

103. Lewis Mason, *Phase II Environmental Site Assessment West Calumet Housing Complex*, HUD EXCHANGE 1, 1 (Feb. 15, 2017), <https://www.hudexchange.info/sites/onecpd/assets/File/Segment-001-of-Phase-II-Report-West-Calumet-Housing-17.1151.2.pdf> [https://perma.cc/GTL8-U5DV] (prepared for East Chicago Housing Authority).

104. Flores, *supra* note 9.

105. *Assessment of Environmental Justice Needs in Northern Lake County Communities*, HOOSIER ENV'T COUNCIL, <https://www.hecweb.org/wp-content/uploads/2019/03/HEC-Assessment-of-EJ-Needs-in-Northern-Lake-County-Communities-FINAL-REPORT2.pdf> [https://perma.cc/F8EV-Y7PP] (last visited Mar. 28, 2023).

106. *Search for Superfund Sites Where You Live*, EPA U.S. ENV'T. PROT. AGENCY (Sept. 2, 2022), <https://www.epa.gov/superfund/search-superfund-sites-where-you-live> [https://perma.cc/Z2DA-JHW7] (choose “Indiana” from the Select a State dropdown; click “go”; then search in search bar “LAKE”).

released in Lake County, totaling 16.5 million pounds of pollutants.<sup>107</sup> When a toxic chemical has been emitted, either into air or water, or “placed in some type of land disposal,” it qualifies as a release.<sup>108</sup> The chemicals listed within the TRI program “cause one or more of the following: 1) cancer or other chronic human health effects; 2) significant adverse acute human health effects; or 3) significant adverse environmental effects.”<sup>109</sup> Of those pollutants released on-site by generators, the greatest proportion of toxic contaminants is released as land pollution, followed by air, then water pollution.<sup>110</sup>

According to the U.S. Census Bureau, 15.8% of Lake County’s population is living in poverty.<sup>111</sup> Yet when East Chicago is looked at in isolation, this figure doubles.<sup>112</sup> East Chicago is also made up a significantly larger proportion of African Americans and Latinos than compared to Lake County and the state of Indiana as a whole, as indicated by the chart below.<sup>113</sup>

	East Chicago	Lake County	Indiana
African American	36%	24.5%	10.2%
Latino	57.5%	20.4%	7.7%
White	6.3%	53%	77.5%

In one of his letters to the EPA, mayor Copeland refers to the WCHC as an “environmental justice community.”<sup>114</sup> In making this statement, Copeland was not only referring to the fact that East Chicago is a low-income community of color, but also that the EPA should be prioritizing this community, consistent with its internal goals. The EPA defines “environmental justice” as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and

107. *TRI Explorer Releases: Chemical Report*, EPA U.S. ENV’T. PROT. AGENCY (Oct.15, 2022), [https://enviro.epa.gov/triexplorer/release\\_chem?p\\_view=COCH&fld=&trilib=TRIQ1&TAB\\_RPT=1&LINESPP=&sort=RE\\_TOLBY&industry=ALL&sort\\_fmt=2&TopN=&STATE=18&COUNTY=18089&chemical=All+chemicals&year=2021&report=&BGCOLOR=%23D0E0FF&FOREGCOLOR=black&FONT\\_FACE=arial&FONT\\_SIZE=10+pt&FONT\\_WIDTH=normal&FONT\\_STYLE=roman&FONT\\_WEIGHT=bold](https://enviro.epa.gov/triexplorer/release_chem?p_view=COCH&fld=&trilib=TRIQ1&TAB_RPT=1&LINESPP=&sort=RE_TOLBY&industry=ALL&sort_fmt=2&TopN=&STATE=18&COUNTY=18089&chemical=All+chemicals&year=2021&report=&BGCOLOR=%23D0E0FF&FOREGCOLOR=black&FONT_FACE=arial&FONT_SIZE=10+pt&FONT_WIDTH=normal&FONT_STYLE=roman&FONT_WEIGHT=bold) [https://perma.cc/4DGU-F676].

108. *What is the Toxics Release Inventory?*, EPA U.S. ENV’T. PROT. AGENCY (Jan. 25, 2023), <https://www.epa.gov/toxics-release-inventory-tri-program/what-toxics-release-inventory> [https://perma.cc/5393-GUAA].

109. *TRI-Listed Chemicals*, EPA U.S. ENV’T. PROT. AGENCY (Aug. 11, 2022), <https://www.epa.gov/toxics-release-inventory-tri-program/tri-listed-chemicalsd> [https://perma.cc/87DA-RD5Z].

110. *TRI Explorer 2021 TRI Factsheet: County – Lake, IN*, EPA U.S. ENV’T. PROT. AGENCY, [https://enviro.epa.gov/triexplorer/tri\\_factsheet.factsheet?pzip=&pstate=IN&pcity=&pcounty=Lake&pyear=2021&pParent=TRI&pDataSet=TRIQ1](https://enviro.epa.gov/triexplorer/tri_factsheet.factsheet?pzip=&pstate=IN&pcity=&pcounty=Lake&pyear=2021&pParent=TRI&pDataSet=TRIQ1) (last visited Nov. 20, 2022).

111. *QuickFacts Indiana; East Chicago city, Indiana; Lake County, Indiana*, U.S. CENSUS BUREAU, <https://www.census.gov/quickfacts/fact/table/IN,eastchicagocityindiana,lakecountyindiana/RHI125221> [https://perma.cc/A83Q-N5MK] (last visited Nov. 20, 2022).

112. *Id.*

113. *Id.*

114. Letter from Copeland, *supra* note 16.

enforcement of environmental laws, regulations, and policies.”<sup>115</sup> According to the EPA, this can only be achieved when “everyone enjoys the same degree of protection from environmental and health hazards, and equal access to the decision-making process to have a healthy environment in which to live, learn, and work.”<sup>116</sup> As policies around environmental justice grow, the story of the WCHC epitomizes how unequal access to affordable, safe housing corresponds with environmental and health issues.

#### *D. The Potential for Serious Health Impacts*

The specific health impacts suffered by former residents of the WCHC is not publicly available. Apart from blood testing that has shown elevated blood lead levels in residents,<sup>117</sup> a group of WCHC residents have asserted suffering emotional distress, driven by their fear that they or a closely related person will contract a future disease or illness because of the lead and arsenic exposure.<sup>118</sup> The scope and severity of health impacts cannot be known at this time. Often cases of environmental contamination pose special challenges concerning latency, which is the unknown period between exposure to a toxic substance and the development of associated diseases and conditions.<sup>119</sup> For each individual exposed, the disease or condition that arises as well as the latency period can vary, or the disease or condition may never manifest. However, given the harmful levels of lead and arsenic found at the WCHC, and given the potential for others living near Superfund sites to be exposed to these substances,<sup>120</sup> one should understand the health risk these substances can pose.

As part of the 1986 amendments to CERCLA, Congress mandated the ATSDR produce peer-review profiles of the hazardous substances found at superfund sites, including lead and arsenic.<sup>121</sup> Lead-based paint in pre-1978

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115. *Environmental Justice*, EPA U.S. ENV'T. PROT. AGENCY (Sept. 30, 2022), <https://www.epa.gov/environmentaljustice> [<https://perma.cc/K7QT-BA92>].

116. *Id.*

117. E-mail from Motria Caudill, Env't Health Scientist, Agency for Toxic Substances & Disease Registry, to Michael Ribordy, Chief of Emergency Response Section #3, U.S. Env't Prot. Agency Region 5 (Sep. 14, 2016, 12:56 PM), <https://semspub.epa.gov/work/05/929439.pdf> [<https://perma.cc/3PP9-CPUQ>].

118. *Mabry v. Cty. of E. Chi.*, No. 2:16-CV-402-JVB-JEM, 2021 WL 5141371 (N.D. Ind. Oct. 20, 2021) (residents filed suit against the City of East Chicago, its mayor, the ECHA and its director, and numerous lead and arsenic manufactures, alleging that the defendants should have known of the serious environmental problem and that unreasonably dangerous conditions existed at the WCHC).

119. Margie Searcy-Alford, A GUIDE TO TOXIC TORTS § 10.06 (2022).

120. Coffey et al., *supra* note 6, at 11.

121. U.S. DEP'T OF HEALTH & HUM. SER., TOXICOLOGICAL PROFILE FOR LEAD vi (Aug. 2020), <https://www.atsdr.cdc.gov/toxprofiles/tp13.pdf> [<https://perma.cc/JP2B-7YY>] [hereinafter *Tox. Profile for Lead*]; *see also* U.S. DEP'T OF HEALTH & HUM. SER., TOXICOLOGICAL PROFILE FOR ARSENIC vi (Aug. 2007), <https://www.atsdr.cdc.gov/toxprofiles/tp2.pdf> [<https://perma.cc/YVA4-5VA7>] [hereinafter *Tox. Profile for Arsenic*].

housing continues to be a major source of childhood lead poisoning;<sup>122</sup> however, this danger is well publicized and addressed by numerous laws and regulations.<sup>123</sup> Generally, the largest source of lead found in soil arises through its settling out of the atmosphere, but industry also contributes to adding to lead in soil.<sup>124</sup> Because of properties that allow lead to absorb strongly into soils as well as its resistance to degradation, historic sources of lead soil contamination are and will continue to be a source of lead exposure.<sup>125</sup>

Exposure to lead can cause a lasting loss of neurological functions, not limited to a reduction in cognitive functioning, but also altering behavior and mood, and motor and sensory functions.<sup>126</sup> This concern is elevated for children, and exposure can begin prenatally and adversely affect development.<sup>127</sup> Blood lead concentration (PbB) levels at very low levels, such as beyond 5 micrograms per deciliter, can lead to adverse effects in many organ systems.<sup>128</sup> Even so, the CDC has found that no lead blood level is safe for children.<sup>129</sup> Arsenic has been found in at least 1,149 of the 1,684 current or former most serious waste sites in the nation and it is possible that the number of sites at which arsenic is found may increase in the future as more sites are evaluated.<sup>130</sup> When arsenic at hazardous waste sites is not disposed of properly, one can be exposed to it in the surrounding water, air, or soil.<sup>131</sup> Children are at an increased risk of exposure through eating small amounts of soil.<sup>132</sup>

Many social factors contribute to health outcomes, such as location.<sup>133</sup> One study has found significant differences in life expectancy between census tracts without Superfund sites within their boundary and neighboring tracts that contain a Superfund site.<sup>134</sup> In fact, the negative adverse impact on life expectancy could be up to five times higher for those who live in tracts in the lower 10% percentile income and contain a Superfund site.<sup>135</sup> Additionally, racial minority groups and low-income communities have been shown to have

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122. Tox. Profile for Lead, *supra* note 121, at 1.

123. Lead-Based Paint Poisoning Prevention Act: Pub. L. No. 91-695, 84 Stat. 2078 (1971) (banning the use of lead-based paint in all residential projects).

124. Tox. Profile for Lead, *supra* note 121, at 1-2.

125. *Id.*

126. *Id.* at 5.

127. *Id.* at 4.

128. *Id.* at 3.

129. *Id.*

130. Tox. Profile for Arsenic, *supra* note 121, at 1.

131. *Id.* at 3.

132. *Id.* at 4.

133. Paula Braveman & Susan Egerter, *Overcoming Obstacles to Health*, RWJF COMM'N TO BUILD A HEALTHIER AMERICA 1, 12 (Feb. 2008), <http://www.commissiononhealth.org/PDF/ObstaclesToHealth-Report.pdf> [<https://perma.cc/TR4V-FSLP>].

134. Amin Kiaghadi et al., *The presence of Superfund sites as a determinant of life expectancy in the United States*, NATURE COMM. 1 (Apr. 13, 2021), <https://www.nature.com/articles/s41467-021-22249-2> [<https://perma.cc/R28K-N5YK>].

135. *Id.* at 4 (stating that “[s]uch an increase in the severity of the harmful effects in tracts with more sociodemographic disadvantages is consistent with findings from other studies”).

poorer health outcomes than others.<sup>136</sup> These groups bear a disproportionate share of environmental exposures and related illnesses.<sup>137</sup> Studies and researchers have found that the lead levels in older, poorer neighborhoods often exceed safe levels, which can harm children and their development.<sup>138</sup> Thus, it is essential that tools to identify and address contamination, as well as a system that mandates checking for contamination in housing projects, are in put into place.

### III. ANALYSIS

#### *A. Limited Options in the Face of Future Crises*

The WCHC story and complex history shows for decades how HUD and the EPA struggled to respond to, and then right the wrongs of, the lead and arsenic contamination at the complex. Without action, it is probable that residents living in other public housing will face similar contamination. As noted earlier, residents have already asserted claims premised on fear that health conditions will arise.<sup>139</sup> Yet, residents will need to overcome multiple barriers to prevail on their claims. HUD created the crisis by allowing the ECHA to construct public housing on a contaminated site and then failing to address the problem for decades. Thus, instead of relying on courts to be compensated for their suffering, HUD should be obligated to make residents whole and stop similar crises from repeating.

Residents of the WCHC have not only been harmed, but the situation at the WCHC is likely to repeat across the nation. In 2020, the Shriver Center on Poverty Law found that “70% of all Superfund sites are located within one mile of HUD-assisted housing developments.”<sup>140</sup> However, this finding does not include federal housing programs not administered by HUD or hazardous sites

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136. Manuel Pastor & Rachel Morello-Frosch, *Gaps Matter: Environmental, Health, & Social Equity*, GENERATIONS: J. AM. SOC’Y ON AGING 28 (2018), <https://www.jstor.org/stable/26556357> [<https://perma.cc/MUC5-BBUX>]; see also Rachel Morello-Frosch et al., *Understanding the Cumulative Impacts of Inequalities in Environmental Health: Implications for Policy*, HEALTH AFF. 879 (May 2011), <https://pubmed.ncbi.nlm.nih.gov/21555471/> [<https://perma.cc/X78Y-25EU>].

137. Devon Payne-Sturges & Gilbert C. Gee, *National environmental health measures for minority & low-income populations: Tracking social disparities in environmental health*, ENV’T RSCH. 154, 154 (2006), <https://pubmed.ncbi.nlm.nih.gov/16875687/> [<https://perma.cc/9T4F-E2YF>].

138. Gabriel M. Filippelli & Mark A. Laidlaw, *The Elephant in the Playground: Confronting Lead-Contaminated Soils as an Important Source of Lead Burdens to Urban Populations*, PERSP. IN BIOLOGY & MED. 31 (2010), <https://pubmed.ncbi.nlm.nih.gov/20173294/> [<https://perma.cc/E6UB-7HYA>]; see also C. Marjorie Aelion et al., *Associations between soil lead concentrations and populations by race/ethnicity & income-to-poverty ratio in urban and rural areas*, ENV’T GEOCHEM HEALTH 1 (Feb. 2013), <https://pubmed.ncbi.nlm.nih.gov/22752852/> [<https://perma.cc/K6CJ-FV7B>].

139. *Mabry v. City of E. Chi.*, 2021 WL 5141371.

140. Coffey et al., *supra* note 6, at 11.

not on the NPL.<sup>141</sup> The EPA and HUD estimate that the Section 8 housing developments located within one mile of these hazardous waste sites are home to approximately 77,000 families.<sup>142</sup>

Furthermore, the lead and arsenic contamination faced by the WCHC residents is not the only type of contamination that can plague a Superfund site and risk the health of those who live near them. As required by the 1986 amendments to CERCLA, the ATSDR has established a list recording and ranking at least 100 of the most hazardous substances currently present in at least one Superfund site on the NPL.<sup>143</sup> Every two years, ATSDR updates this list, now known as Substance Priority List.<sup>144</sup> Each substance is ranked by its toxicity, the number of times it's been found at a NPL site, and the likelihood of exposure.<sup>145</sup> As of 2019, arsenic was ranked first, followed by lead.<sup>146</sup> Despite only being required to list 100 substances, ATSDR has listed 275 total substances that are of concern.<sup>147</sup>

Tens of thousands of families live in public housing developments located within one mile of sites that can contain a wide array of toxic chemicals.<sup>148</sup> Thus, it is unfortunate and likely that the WCHC's residents will not be the last to be exposed and impacted by the negative environmental health impacts linked to these sites. In Indiana alone, about half of the fifty-three sites that have been on the NPL since it was first published in 1980 are within two miles or less of HUD-funded public housing.<sup>149</sup> WCHC residents may seek to recover costs associated with relocating, emotional distress, or for future medical monitoring and health impacts, but so too may other public housing residents if the WCHC's story repeats itself.

The ability of residents to be made whole is limited legally. Future residents of public housing that find they've been exposed need to consider the following hurdles to recovery. As one scholar notes, bringing independent causes of action, such as those grounded in tort-law, are cost-prohibitive and may require extensive law firm resources—limiting the firms that would be open to taking

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141. *Id.*

142. *Id.*

143. 42 U.S.C. § 9604 (2022).

144. *ATSDR's Substance Priority List*, ATSDR AGENCY FOR TOXIC SUBSTANCES & DISEASE REGISTRY (Jan. 17, 2020), <https://www.atsdr.cdc.gov/spl/> [<https://perma.cc/9Q29-6U8J>]; *see also 10 Steps to making an ASTDR ToxProfile*, ATSDR AGENCY FOR TOXIC SUBSTANCES & DISEASE REGISTRY (Nov. 12, 2019), [https://www.atsdr.cdc.gov/toxprofiles/toxprofile\\_infographic.html](https://www.atsdr.cdc.gov/toxprofiles/toxprofile_infographic.html) [<https://perma.cc/7HY7-45CR>].

145. 42 U.S.C. § 9604; *see also 10 Steps to making an ASTDR ToxProfile*, *supra* note 144.

146. *ATSDR's Substance Priority List*, *supra* note 144.

147. *Id.*

148. Coffey et al., *supra* note 6, at 2.

149. Enrique Saenz, *Decades of "Missed Opportunities" Exposed Multiple Generations of East Chicago Residents to Lead Contamination, Federal Report Finds*, IND. ENV'T REP. (Mar. 21, 2021), <https://www.indianaenvironmentalreporter.org/posts/decades-of-missed-opportunities-exposed-multiple-generations-of-east-chicago-residents-to-lead-contamination-federal-report-finds> [<https://perma.cc/URW9-HDE2>].

such cases.<sup>150</sup> In addition, a running statute of limitations and issues with latency between exposure and the onset of disease present additional barriers to recovery.<sup>151</sup> Many, though not all, of the industrial polluters are no longer solvent or in operation, but may be pursued via the legal theory of successor in interest.<sup>152</sup> To recover from the federal or state government for their roles in the catastrophe, immunity presents another barrier to overcome.<sup>153</sup> And while the State of Indiana, IDEM, and the EPA, have been able to recover the costs of cleanup through CERCLA imposed strict-liability,<sup>154</sup> CERCLA does not allow funds to go towards compensating residents for moving or future health impacts.<sup>155</sup> Given the various limitations associated with civil litigation actions, such as those above as well as issues with latency, lapse of time, and proving causation, this Note will focus on the regulatory options to preventing and solving environmental contamination facing residents of public housing. However, this is not to say that suing is impossible; residents of the WCHC have overcome some of these hurdles to present their claims.<sup>156</sup>

The outcome of the WCHC-associated litigation could forecast the likelihood of recovery for other public housing residents put in a similar situation in the future. In state and federal courts, residents of the WCHC have brought a variety of claims including but not limited to negligence, nuisance, trespass, intentional and negligent infliction of emotional distress, fraudulent concealment, breach of contract and implied warranty, as well as violations 14<sup>th</sup> amendment due process and of various statutes.<sup>157</sup> Industrial defendants, such as Atlantic Richfield and DuPont, have met these allegations with motions to dismiss.<sup>158</sup> Thus far, plaintiffs' claims against former industrial owners and operators of facilities at the WCHC site for nuisance have been dismissed on multiple grounds.<sup>159</sup> Nevertheless, some of the residents' claims may succeed against other parties, such as the ECHA and its director or the City of East

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150. Hannah Reed, *Indiana's Public Health is in Jeopardy: Lessons to Learn from Toxic Chemical Contamination in East Chicago*, 15 IND. HEALTH L. REV. 109, 133 (2018).

151. *Id.*; see also IND. CODE § 34-11-2-7 (2022).

152. Reed, *supra* note 150, at 129.

153. *Id.* at 126-128.

154. Consent Decree at 1, U.S. v. Atl. Richfield Co. & E. I. DuPont de Nemours and Co. (N.D. Ind 2014) (No. 2:14-cv-312), <https://semspub.epa.gov/work/05/919701.pdf> [<https://perma.cc/8W54-PBPZ>].

155. 42 U.S.C. § 9611; see also Paul J. Liyo & Thomas Burke, *Superfund: is it safe to go home?*, 20(2) J. EXPOSURE SCI. & ENV'T EPIDEMIOLOGY 113, 114 (2010).

156. Rolan v. Atl. Richfield Co., No. 1:16-CV-357-TLS, 2017 WL 3191791, at 12 (N.D. Ind. July 26, 2017).

157. Mabry v. City of E. Chi., 2021 WL 5141371.; see also Adams v. Atl. Richfield Co., No. 2:18-CV-375-JVB-JPK, 2021 WL 4819608, at 3 (N.D. Ind. Oct. 15, 2021).

158. Mabry v. City of E. Chi., 2021 WL 5141371.; see also Adams v. Atl. Richfield Co., 2021 WL 4819608, at 1.

159. Rolan v. Atl. Richfield Co., *supra* note 156, at 15 (stating that plaintiffs have failed to state a claim for nuisance because a "later purchaser of property cannot sue a prior owner of that same property for nuisance, as the latter owes no duty to the former" and that the contamination was not ongoing).

Chicago and its mayor. Because this litigation is ongoing, the outcome will not be speculated upon in this Note. Rather, since these proceedings are ongoing and recovery is not ensured, this Note will look to regulatory options that can promote the discovery of environmental contamination at public housing projects and options to provide residents more certain relief with fewer barriers. This is especially important given the potential for the WCHC's situation to arise again at other housing complexes.

Today the dangers of lead and arsenic are now well known and have been of high concern since the first Substance Priority List was published in 1987.<sup>160</sup> Although unknown at the time the ECHA built the WCHC, today land use history and elevated blood lead levels are indicative of chemical contamination. In the situation of the WCHC, there were reports with data contrary to their conclusions, missed opportunities by HUD to perform environmental assessments, and years of additional testing and waiting for data to be fully assessed while residents were being exposed. While HUD should certainly partner with the EPA and use its data, delaying action when there are other indicators of contamination, only furthers slow agency response. Measures must be taken to prevent contamination from going undiscovered, undisclosed, and unremediated for such long periods of time. These measures must include updating HUD regulation to ensure environmental reviews are performed proactively and with proper oversight, as well as expanding testing to cover a wider array of hazardous substances and surface types. In addition, regulation must provide recourse to residents if they face health conditions from being exposed at sites that were not remedied quickly and competently.

### *B. Solution One: Safeguards to Prevent a Similar Crisis*

The WCHC's story illustrates how both HUD and the EPA, which are responsible for keeping communities safe,<sup>161</sup> had multiple opportunities to discover and warn residents of the contamination at the complex as early as 1994. The failure of HUD to provide adequate oversight resulted in WCHC residents living in unsafe conditions for decades and the lead poisoning of children.<sup>162</sup> Since the crisis at the WCHC, both agencies have been working to close various gaps to prevent a similar crisis in the future, but they need to do more. While this section will provide an overview of those actions, it will also examine why these actions are insufficient and propose additional ways to protect public housing residents who live near Superfund sites.

Following the relocation of WCHC residents, HUD promulgated a final rule

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160. Notice of First Priority List of Hazardous Substances That Will Be the Subject of Toxicological Profiles, 52 Fed. Reg. 74, 12866, 12869 (Apr. 17, 1987) (listing lead and arsenic within the highest priority group, "Priority Group 1").

161. BROOKS & MELLARD, *supra* note 29, at 14.

162. OFF. OF INSPECTOR GEN., *supra* note 3, at 13.

in 2017 aligning its regulatory definition of elevated blood lead levels in children under six years old with the CDC's determination that levels beyond 5 µg/dl are dangerous.<sup>163</sup> Prior to updating this regulation, housing providers were not required to intervene unless the child had elevated blood levels four times higher than the CDC's intervention level.<sup>164</sup> The final rule has also established more comprehensive testing and communication procedures under the Lead Safe Housing Rule (LSHR),<sup>165</sup> and clarifies each parties' responsibility.<sup>166</sup> Now once this much lower-threshold blood level is detected in a child who lives in public housing, the PHA must notify the public health department, various offices within HUD, and all other residents if the property has multiple units.<sup>167</sup> Additionally, an environmental investigation which includes testing "bare soil," must be performed within fifteen days.<sup>168</sup>

While the final rule amends HUD's lead based-paint regulations to address and, in the future, prevent some of the issues that occurred at the WCHC, it could go farther to protect residents. First, "bare soil" only includes soil or sand not covered by grass or other types of ground cover.<sup>169</sup> The lion's share of environmental contamination comes from former industry, and many toxins, as particulate matter, settle out of the air onto surfaces. Given that children are likely to play on grassy surfaces, a variety of outdoor surfaces, as well as "bare soil" should be tested.

Second, an environmental investigation and communication is triggered only for lead, not other hazardous substances. Certainly, the LSHR is an important statute providing residents of all federally owned- and assisted-housing protection against lead.<sup>170</sup> The statute was originally designed to focus on lead-based paint but was amended by Title X of the Housing and Community Development Act of 1992 to include lead-contaminated dust and soil.<sup>171</sup> While the LSHR's scope encompasses only lead, parallel statutes could be passed using its regulatory scheme to expand resident's protection to other types of environmental contaminants. One place to start would be with the other

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163. Requirements for Notification, Evaluation and Reduction of Lead-Based Paint Hazards in Federally Owned Residential Property and Housing, 82 Fed. Reg. 4151, 4152 (Jan. 13, 2017) (codified at 24 C.F.R. 35).

164. Walz & Coffey, *supra* note 26, at 9, 10; *see also* OFF. OF INSPECTOR GEN., *supra* note 3, at 13.

165. Requirements for Notification, Evaluation and Reduction of Lead-Based Paint Hazards in Federally Owned Residential Property and Housing, *supra* note 163, at 4152-54.

166. *Id.* at 4156-72.

167. *Id.* at 4170.

168. 24 C.F.R. §§ 35.730, 35.1335 (2022).

169. 24 C.F.R. § 35.110 (2022).

170. *Lead-Safe Housing Rule Requirements*, U.S. DEP'T OF HOUS. & URB. DEV., [https://www.hud.gov/program\\_offices/healthy\\_homes/enforcement/lshr\\_summary](https://www.hud.gov/program_offices/healthy_homes/enforcement/lshr_summary) [<https://perma.cc/Z6PQ-3EBJ>] (last visited Nov. 20, 2022).

171. An Overview of What Five Federal Agencies are Currently Doing to Help Make Housing Lead-Safe for Children: Hearing Before the Subcomm. on Hous. and Transp. of the Comm. on Banking, Hous., and Urb. Aff., 107th Cong. 2 (2002) (statement of Jack Reed, Senator [hereinafter Hearing]).

substances at the top of the ATSDR's substance priority list since these substances are already ranked by their prevalence and threat to human health.<sup>172</sup> Additionally these sister statutes could be narrowed to apply only to Section 8 housing, and further to HUD-assisted housing developments located within a mile of any site on the NPL.

Third, while strengthening and clarifying testing and communication procedures is undoubtedly needed, it is only a response mechanism once elevated blood levels have already been detected.<sup>173</sup> Given that an estimated one thousand public housing projects are within one mile of a Superfund site,<sup>174</sup> PHAs should be taking steps to check these properties' soil for environmental toxins, rather than responding only once elevated blood levels are detected. HUD has relied on the EPA to identify contaminated properties and does not have its own strategy to research and review potential contaminated properties.<sup>175</sup> Furthermore the environmental review process, which would uncover contamination and trigger remediation or abatement, is not being performed by PHAs proactively. Under HUD's regulations, PHAs are usually the "responsible entities" that must perform environmental reviews of multi-family housing to obtain HUD approval of a project or funding.<sup>176</sup> PHAs should be performing environmental assessments which would unveil some contamination posing health risks under NEPA.<sup>177</sup>

Under NEPA, federal agencies are required to assess the environmental effects of proposed "major federal actions."<sup>178</sup> Since a "major federal action" includes projects entirely or partly financed, assisted, regulated, or approved by federal agencies, the construction or financing of a public housing project by HUD qualifies as a "major federal action" and triggers NEPA.<sup>179</sup> Under NEPA, before action is taken, federal agencies or the agency carrying out the federal action as well as cooperating agencies,<sup>180</sup> must explore and document alternative approaches and describe any potential environmental effects of each alternative.<sup>181</sup> They must also involve the public through a scoping process and inviting comments on their assessment to increase public awareness and involvement.<sup>182</sup> The environmental effects to be assessed under NEPA are broad,<sup>183</sup> including not only how construction of a project might impact the

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172. *ATSDR's Substance Priority List*, *supra* note 144.

173. Hearing, *supra* note 171.

174. Coffey et al., *supra* note 6, at 11.

175. OFF. OF INSPECTOR GEN., *supra* note 3, at 16.

176. 24 C.F.R. §§ 58.1, 983.58 (2023).

177. 42 U.S.C. § 4332(2)(C)(i) (2022).

178. *Id.*

179. 42 C.F.R. § 1508 (2023).

180. *What is the National Environmental Policy Act?*, EPA U.S. ENV'T. PROT. AGENCY (Nov. 16, 2021), <https://www.epa.gov/nepa/what-national-environmental-policy-act> [<https://perma.cc/T9ZE-92H3>].

181. 40 C.F.R. § 1502 (2023).

182. 40 C.F.R. §§ 1501.7, 1503 (2023).

183. 40 C.F.R. §1508(b) (2023).

environment, but also in the context of HUD-assisted projects, how the environment can affect the project and its residents.<sup>184</sup>

In passing NEPA, Congress asserted that “each person should enjoy a healthful environment,” yet the act does not require agencies to choose a less environmentally impactful course of action after completing their assessment and receiving feedback from the public.<sup>185</sup> Still controlling Supreme Court decisions held that NEPA “does not mandate particular results, but simply prescribes the necessary process” to be followed.<sup>186</sup> So, while NEPA generates agency transparency and promotes public engagement, an agency is not mandated to take a particular action in accordance with the results. Thus, while HUD would likely discover contamination through a NEPA assessment, it could still construct housing on that site. Of course, this decision would be unlikely not only because public involvement via NEPA would promote outcry, but also because regulation governing HUD requires that “all property proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances.”<sup>187</sup> This same regulation specifically requires an environmental review by HUD to ensure compliance with NEPA as well as other related laws and authorities.<sup>188</sup> Therefore, HUD has a responsibility to “ensure that state and local governments, as well as local housing authorities, comply with environmental reviews so potential contaminants that could endanger residents’ health are addressed.”<sup>189</sup>

HUD’s compliance with NEPA has one large caveat. Since NEPA was not passed until 1970, this means many HUD-funded properties built before then, like the WCHC, likely never received an initial environmental review. The 1989 American Housing Survey found that up to 61% of public housing units were built before 1970.<sup>190</sup> While some of this housing may have since been shut down, this still leaves much of public housing vulnerable. Additionally, before 1996, environmental reviews were completed inconsistently.<sup>191</sup> Both the EPA and HUD have been working together to determine which properties are within one mile of a Superfund site on which “human exposure was not under control

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184. *Orientation to Environmental Reviews*, HUD EXCH., <https://www.hudexchange.info/programs/environmental-review/orientation-to-environmental-reviews/#overview> [https://perma.cc/A5AK-SKCP] (last visited Nov. 20, 2022).

185. 42 U.S.C. § 4331 (2022).

186. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 354 (1989); *see also Strycker’s Bay Neighborhood Council, Inc. v. Karlen*, 444 U.S. 223, 227-28 (1980).

187. 24 C.F.R. § 50 (2022).

188. 24 C.F.R. § 50 (2022); 24 C.F.R. § 58 (2022).

189. Tracy Jan, *Internal Report Cites HUD for Lead Poisoning in East Chicago, Ind., Children. More Could be at Risk.*, THE WASH. POST (Feb. 17, 2021, 6:00 AM), <https://www.washingtonpost.com/business/2021/02/17/hud-toxic-superfund/> [https://perma.cc/BN28-HMCM].

190. *Public Housing: Image Versus Facts*, U.S. HOUS. MKT. CONDITIONS (May 1995), <https://www.huduser.gov/periodicals/ushmc/1stqtr95.txt> [https://perma.cc/X7RD-AEWM].

191. OFF. OF INSPECTOR GEN., *supra* note 3, at 17.

or there was not enough information to determine human exposure status.”<sup>192</sup> In February 2020, this list included 2,528 public housing properties and 217 Multifamily Section 8 project-based rental assistance properties,<sup>193</sup> yet neither HUD nor the inspector general’s office have released the list of properties.<sup>194</sup>

This list not only needs to be released so residents may be warned of potential contamination, but environmental assessments need to be conducted to confirm contamination, initiate the remediation or abatement process, and allow residents support in relocating. HUD has the ability and procedures to guide it in conducting environmental reviews, however, there is nothing to incentivize HUD to perform environmental assessments retroactively on pre-1970 properties or on other properties that have fallen through the cracks. By completing environmental reviews HUD could be proactive in protecting its residents and through the procedural NEPA process HUD could involve and give notice to residents of their findings.

Currently HUD defers to the EPA on what action to take when public housing is located on an existing or proposed Superfund site.<sup>195</sup> While HUD should certainly consult with the EPA, it should not wait for the EPA to conduct testing before it acts.<sup>196</sup> HUD policies and procedures state that HUD should “must conduct its own due diligence at NPL sites,”<sup>197</sup> but the agency is not doing so. While environmental assessments are triggered by rehabilitation, this was not sufficient at the WCHC to discover the contamination. As mentioned earlier, the ECHA’s failure to properly conduct environmental reviews allowed the ECHA to complete rehabilitation projects between 2003 and 2016 without discovering WCHC’s contamination.<sup>198</sup> Instead of waiting for these properties to be rehabilitated, change ownership, or change their land use, which would trigger an environmental assessment under NEPA, the triggers of an environmental assessment should be adjusted. To add to these triggers, an environmental assessment should be done by PHAs a multi-family housing project it oversees is within one mile of a superfund site.

Under Part 58, HUD intends to check that PHAs are conducting their environmental reviews correctly every three years.<sup>199</sup> Due to lack of time HUD interviewees have said that “only very cursory review is ever done of the environmental issues.”<sup>200</sup> To promote review by HUD on a regular basis,

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192. *Id.* at 16.

193. *Id.*

194. Jan, *supra* note 189.

195. DEP’T OF HOUS. & URB. DEV., OMB No. 2502-0541, ENV’T REV. & REQUIREMENTS 1-1, 9-23-24 (Mar. 19, 2021), <https://www.hud.gov/sites/dfiles/OCHCO/documents/4430GHSGG.pdf> [<https://perma.cc/2MJE-HERS>].

196. *Id.* at 9-23-24.

197. *Id.*

198. OFF. OF INSPECTOR GEN., *supra* note 3, at 11-13.

199. *Study of HUD’s Site Contamination Policies*, HUDUSER.GOV ES-1, 2-32-33 (June 20, 2003), <https://www.huduser.gov/Publications/PDF/HUDSiteContamination.pdf> [<https://perma.cc/6534-H465>] (prepared for U.S. Department of Housing and Urban Development).

200. *Id.*

environmental assessments for housing projects within one mile of a superfund site should be an included aspect of the PHA's annual plan. Annual plans are documents containing a statement of housing needs, financial resources, operation and management rules and standards, and the PHA's eligibility, selection, and admissions policies.<sup>201</sup> It also includes other information about discretionary policies, as well as non-discretionary requirements.<sup>202</sup> This plan must be consistent with the PHA's overarching goals, missions, and objectives and provide grievance procedures available to residents and applicants.<sup>203</sup> In addition, public hearings and an opportunity to comment on the plan must be provided to residents.<sup>204</sup>

A section detailing the findings of each environmental assessment performed at each housing complex within one mile of a superfund site should be added to 24 CFR § 903.7, which sets of the information which much be provided in an annual plan.<sup>205</sup> Since the annual plan requirement was one of Congress's ways of holding PHA accountable, the addition of information about environmental contamination would only further this accountability. Requiring an environmental review's findings in the annual plan would make PHAs' capital funding dependent on conducting these.<sup>206</sup> This would create additional incentive for PHA to comply and also give residents direct notice of any contamination.<sup>207</sup> In addition, HUD should be held responsible for conducting environmental reviews when it fails to properly oversee or withhold funds when a PHA has not conducted the review properly or at all. As with other agencies who provide a public service, residents of public housing within one mile of a superfund site should also have a system to appeal to HUD if the PHA has not conducted an environmental assessment or shared the results with residents in their annual plan. This would encourage agency action and give residents an additional recourse when HUD does not fulfil its charge that all properties be free of hazardous materials and contamination.<sup>208</sup>

While the 2017 proposed rule by HUD established more comprehensive testing and communication procedures under the LSHR, it also requires that PHAs must abate "lead-based paint hazards."<sup>209</sup> This includes not just lead-based paint and dust, but the "removal or permanent covering of soil-lead

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201. 24 C.F.R. § 903.7 (2023).

202. *Id.*

203. *Id.*

204. 24 CFR § 903.17

205. 24 CFR § 903.7..

206. DEP'T OF HOUS. & URB. DEV., PUBLIC HOUSING AGENCY (PHA) PLAN DESK GUIDE 1, 1-2 (Sept. 20, 2001), [https://www.hud.gov/sites/documents/DOC\\_8904.PDF](https://www.hud.gov/sites/documents/DOC_8904.PDF) [<https://perma.cc/PS8A-NUMB>].

207. *Id.* at 1-2.

208. 24 CFR § 58.5 (2023).

209. Requirements for Notification, Evaluation and Reduction of Lead-Based Paint Hazards in Federally Owned Residential Property and Housing, 82 Fed. Reg. at 4170 (Feb. 13, 2017) (to be codified at 24 C.F.R pt.35)

hazards.”<sup>210</sup> To hold the PHA accountable and ensure remediation or abatement is performed, compliance with these updated requirements and the rest of the LSHR is included as part of the Capital Fund Program regulations.<sup>211</sup> “[PHAs] that are not compliant with the LSHR *may* be subject to sanctions including withholding, reducing, or terminating Capital Fund or Operating Fund assistance.”<sup>212</sup> HUD must begin holding PHAs accountable and subjecting PHAs to sanctions when they are noncompliant. As one scholar has suggested, HUD grant and contract documents should also specify explicit amounts that will be withheld in the event LSHR requirements are not satisfied.<sup>213</sup> Additionally HUD should ensure PHAs comply with the quarterly data collection and record keeping requirements,<sup>214</sup> by also making this information a necessary requirement of each PHA’s annual plan. Any failure to comply should result in a fine, which could then be used to create a fund, proposed below, to compensate residents for their suffering and any health conditions that arise from exposure.

### *C. Solution Two: Developing a Recourse for Harmed Residents*

Even if there are sufficient safeguards put in place to prevent environmental contamination from continuing to go unnoticed and unaddressed, systems need to be developed to provide recourse to injured residents. WCHC residents deserve compensation for their suffering, having to relocate, and to help pay future medical expenses; however, there should be an option other than litigation. In the likely event additional contamination of public housing is uncovered at other complexes, those residents will also need an alternative option. While some argue that HUD’s efforts to relocate affected residents was insufficient, the White House Council on Environmental Quality has recommended that HUD should establish a voluntary relocation program for residents whose housing was built on toxic sites.<sup>215</sup> President Biden’s 2023 budget request sought up to ten million dollars to fund a pilot program which would, in part, include this voluntary relocation program.<sup>216</sup> Since there are no proposals focused on compensating residents for their suffering and any health conditions that arise from exposure, this Note proposes a solution tailored to that unaddressed issue.

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210. 24 C.F.R. § 35.110 (2022).

211. *Id.* § 905.308.

212. *Id.* § 905.804 (emphasis added).

213. Emily A. Benfer et al., *Duty to Protect: Enhancing the Federal Framework to Prevent Childhood Lead Poisoning and Exposure to Environmental Harm*, 18 YALE J. HEALTH POL’Y L. & ETHICS 1, 20 (2019).

214. 24 C.F.R. § 35.1225(g) (2022).

215. WHITE HOUSE COUNCIL ON ENV’T QUALITY, JUSTICE40 REVISIONS 2, 132 (May 21, 2021), [https://www.epa.gov/system/files/documents/2022-05/CEQ\\_Response\\_to\\_the\\_WHEJ\\_AC\\_May\\_2021\\_Recommendations.pdf](https://www.epa.gov/system/files/documents/2022-05/CEQ_Response_to_the_WHEJ_AC_May_2021_Recommendations.pdf) [<https://perma.cc/29XP-5SBT>].

216. *Id.*

Once contamination of a property has been confirmed by an environmental review, the residents should also be supplied with options, apart from litigation, to remedy the situation. Under HUD's 2017 final rule, residents must wait for the remediation or abatement process to be carried out and do not have any power in the process.<sup>217</sup> While residents will be notified of hazards, and interim controls may be put in place, they must be provided an option to receive more immediate assistance. Senator Durbin has proposed one solution, the Lead-Safe Housing for Kids Act, which would require HUD to relocate residents on an emergency basis without any wait, penalty, or lapse in assistance.<sup>218</sup> This proposal should be adopted because it will move many children out of danger. However, it only provides a remedy for those children exposed to lead and does not provide any assistance with residents' health. As recommended earlier, sister statutes could be passed using the LSHR regulatory scheme with Senator's Durbin's amendment to expand resident's protection to other types of environmental contaminants.

A much more comprehensive option would be for Indiana, or the federal government, to pass a law that provides compensation to public housing residents—children and adults—exposed to hazardous chemicals due to their public housing's proximity to a Superfund site. Since this Note is the first to propose this solution, it thus looks to existing legislation that a compensation program could be modeled after. There are many existing no-fault compensation schemes for a variety of injured parties that are alternatives to the traditional tort system.<sup>219</sup> In the case of residents seeking compensation for their injuries and suffering caused by living in contaminated public housing, the most applicable legislation to model a fund after is the National Childhood Vaccine Injury Act of 1986 (NCVIA).<sup>220</sup>

The NCVIA provides an alternative to the traditional tort system for compensating people injured by any vaccines administered on or after October 1, 1998, suffering injuries listed at 42 U.S.C.A. section 300aa-14.<sup>221</sup> Under the Act's National Vaccine Injury Compensation program,<sup>222</sup> a person who has suffered a vaccine-related illness or death need only submit a petition to the United States Claims Court alleging that the injury is vaccine related.<sup>223</sup> A special master will then issue a decision as to whether and how much

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217. Benfer et al., *supra* note 213, at 21.

218. Lead-Safe Housing for Kids Act, S.1860, 117th Cong. (2021).

219. Betsy J. Grey, *Homeland Security and Federal Relief: A Proposal for a Permanent Compensation System for Domestic Terrorist Victims*, 9 N.Y.U. J. LEGIS. & PUB. POL'Y 663, 667-68 (2005/2006); *see also* Kathryn Whetten-Goldstein et al., *Compensation for Birth-Related Injury No-Fault Programs Compared with Tort System*, 153 ARCHIVES PEDIATRICS & ADOLESCENT MED. 41, 41 (Jan. 1999), <https://jamanetwork.com/journals/jamapediatrics/fullarticle/344865> [<https://perma.cc/8BKH-KQYN>].

220. 42 U.S.C. § 300aa-1 (2022).

221. *Id.* § 300aa-11.

222. *Id.* § 300aa-10-19.

223. *Id.* § 300aa-11.

compensation is to be provided to the victim.<sup>224</sup> So long as the petitioner has demonstrated by a preponderance of the evidence that the injury or death is within the above timeframe and listed by the Act, compensation shall be awarded.<sup>225</sup> Thus, to receive compensation a victim does not need to demonstrate the vaccine manufacturer or administrator's fault, a defect with the vaccine, or causation connecting the injury to a specific manufacturer or administrator under the NCVIA.<sup>226</sup> A petitioner may also receive compensation by providing proof that a vaccine caused one's condition or aggravated a previously existing condition.<sup>227</sup>

Compensation consists of expenses that will be incurred or have already resulted from the vaccine-related injury, and can include the costs of diagnosis and medical or other remedial or rehabilitative care.<sup>228</sup> Compensation can also include attorney's fees and awards for pain and suffering, limited to \$250,000; punitive damages are prohibited.<sup>229</sup> If the person died from the vaccination, an award is limited to \$250,000, plus attorney's fees.<sup>230</sup> The NCVIA is funded partially by appropriations from federal tax revenue and partially by an excise tax on each dose of a vaccine.<sup>231</sup> If a victim submits a petition but chooses not to proceed with their claim under NCVIA and instead seeks to recover in court, their theories of liability in tort will be limited. If the injury or death was "unavoidable even though the vaccine was properly prepared and was accompanied by proper directions and warnings" then a vaccine manufacturer shall not be held liable for such.<sup>232</sup> On the other hand if a victim agrees to accept compensation under NCVIA they may not receive "a subsequent award in a civil trial."<sup>233</sup>

Since the NCVIA's inception, over 11,000 petitions have been filed.<sup>234</sup> While it may seem that the pool of who may collect from the NCVIA is broad, the listed injuries and vaccines does not cover every injury and vaccine but

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224. *Id.* § 300aa-12.

225. *Id.* § 300aa-13.

226. Lainie Rutkow et al., *Balancing Consumer and Industry Interests in Public Health: The National Vaccine Injury Compensation Program and Its Influence During the Last Two Decades*, 111 PENN ST. L. REV. 681, 684 (2007); see also *Shackil v. Lederle Labs., Div. of Am. Cyanamid, Co.*, 116 N.J. 155, 184 (1989).

227. 42 U.S.C. § 300aa-11 (2022).

228. 42 U.S. C. § 300aa-15 (including developmental evaluation, special education, vocational training and placement, counseling and therapy, and residential care, among other things).

229. *Id.*

230. *Id.*

231. *Id.*; see also *About the National Vaccine Injury Compensation Program*, HRSA HEALTH RES. & SERV. ADMIN. (Apr. 2023), [https://www.hrsa.gov/vaccine-compensation/about#:~:text=Funded%20by%20a%20%24,is%20prevented\)%20of%20a%20vaccine](https://www.hrsa.gov/vaccine-compensation/about#:~:text=Funded%20by%20a%20%24,is%20prevented)%20of%20a%20vaccine) [https://perma.cc/6KZJ-HPX8].

232. 42 U.S.C. § 300aa-22 (2022).

233. *Shackil v. Lederle Labs., Div. of Am. Cyanamid, Co.*, 116 N.J. 155, 185 (N.J. Sup. Ct. 1989).

234. Rutkow et al., *supra* note 226, at 688.

rather mainly those routinely given to children and some adult vaccines.<sup>235</sup> In addition, the injury's effects must have continued at least 6 months after the vaccine was administered or resulted in inpatient hospitalization or surgical intervention.<sup>236</sup> However, the NCVIA requires that all victims injured after 1988 must first prosecute a claim under the Act before pursuing a separate cause of action under tort law.<sup>237</sup> Thus, this may broaden the pool of petitioners slightly since it functions as a precursor to pursuing other tort actions.

Those harmed by exposure to contamination at public housing located within one mile of a Superfund site should similarly be able to seek compensation under a no-fault scheme that would function similarly to NCVIA. A person who has died or suffered an illness or condition arising from their exposure to contamination of their residence would file a petition that their claim is related to exposure in public housing with a court in Indiana that is most akin to a Court of Claims. Like the NCVIA, exposure would have to occur after a certain date, which here might be the date of the report discovering which public housing complexes were located within a mile of a Superfund site or [give date]. The list of injuries stemming from certain vaccines listed at 42 U.S.C. § 300aa-14, could be replaced with a list of substances on the ATSDR's Substance Priority List and the known conditions arising from exposure to those substances. This list could be narrowed to include only the top fifteen substances on the list and the resulting conditions or injuries that most commonly arise in children exposed to these, to mirror how the NCVIA is tailored to focus on risks to children. If the petitioner demonstrates by a preponderance of the evidence that they lived within public housing within one mile of a Superfund site and during their residence their injury or death is within the above timeframe and listed by the Act, compensation should be awarded. Like the NCVIA, the injury's effects must also continue for a certain amount of time from when the resident was exposed to the hazardous chemical or exposure resulted in inpatient hospitalization or surgical intervention. A petitioner could also be given the option to receive compensation by providing proof that exposure caused one's condition, such as by showing elevated blood lead levels, or aggravated a previously existing condition.

For ease of reference and lack of a better name, this proposal can be deemed the Injured Residents of Contaminated Public Housing Act (IRCPHA). The scheme could also be adopted nationally or by other states since it is estimated that approximately 77,000 families live within Section 8 housing developments located within one mile a Superfund site.<sup>238</sup> As mentioned above, residents have

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235. *Vaccine Injury Compensation Programs*, COLL. OF PHYSICIANS OF PHILA., <https://historyofvaccines.org/vaccines-101/ethical-issues-and-vaccines/vaccine-injury-compensation-programs> [<https://perma.cc/52VT-8D9B>] (last visited Apr. 5, 2023).

236. *National Vaccine Injury Compensation Program*, HEALTH & HUM. SERV. ADMIN., <https://www.in.gov/health/files/VICP.pdf> [<https://perma.cc/7TBU-UXW8>] (last visited Apr. 5, 2023).

237. 42 U.S.C. § 300aa-11 (2022).

238. Coffey et al., *supra* note 6, at 11.

numerous barriers to overcome to prevail in a tort action. Like NCVIA, this scheme should provide an alternative to the traditional tort system and wouldn't make recovery contingent upon demonstrating that a provider of public housing knew it was contaminated or proving causation. To reduce litigation against providers of public housing and the industry that caused the contamination and prevent double recovery, a victim who accepts compensation should be precluded from receiving a subsequent award in a civil trial. However, the other parts of the NCVIA that act as a required precursor to filing a tort action or limit victim's ability to assert certain theories should not be retained since there already sufficient hurdles that make prevailing on a claim difficult for victims.

As for compensation and funding of the Indiana IRCPHA, these would again resemble the NCVIA's scheme. Compensation for injured residents could include expenses that have already been incurred or have resulted from the resident's exposure-related injury and should include the costs of diagnosis, medial, and other care.<sup>239</sup> Although the Children's Health Insurance Program (CHIP) provides some assistance to families in covering their children's health care needs,<sup>240</sup> compensation under the proposed act would also include compensation for developmental evaluation, special education, and therapy among other things which are particularly needed for children suffering from cognitive and learning disabilities due to lead exposure. Also, like the NCVIA, compensation could also include awards or pain and suffering and exclude awards for punitive damages.

Funding would not have to be equivalent of the "up to the eighty million dollars" which Congress appropriated for the NCVIA.<sup>241</sup> Here the pool of potential injured individuals in Indiana would be those living in public housing complexes within one mile or less of public housing and is thus much smaller than all individuals in the nation who might be harmed by a vaccine. This pool would widen if an IRCPHA were enacted by the federal government, rather than just the state of Indiana. For an act applicable only to Indiana, the Indiana General Assembly could appropriate some funds, just as Congress did with the NCVIA to "assure funding during the nascent stages of the Act. . . ."<sup>242</sup> The rest of the funding could come from fines on PHAs that do not properly conduct environmental reviews or comply with annual plan requirements. Until HUD begins enforcing compliance and fining PHAs, this may not be sufficient. Generally, other scholars have also suggested levying a risk tax on the production of certain chemicals.<sup>243</sup> In this application, the chemicals taxed should be the top fifteen substances on the ATSDR's Substance Priority List.

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239. 42 U.S.C. § 300aa-15 (2022).

240. *Hoosier Healthwise*, IND. MEDICAID FOR MEMBERS, <https://www.in.gov/medicaid/members/member-programs/hoosier-healthwise/> [<https://perma.cc/G5EU-8FJ8>] (last visited Apr. 5, 2023).

241. *Shackil v. Lederle Labs., Div. of Am. Cyanamid, Co.*, 116 N.J. 155,183 (N.J. Sup. Ct. 1989).

242. *Id.*

243. Reed, *supra* note 150, at 135.

For example, in Indiana, this would consist of a tax on manufacturers of lead or arsenic, which generally operate in the areas that most need public housing like East Chicago, Indiana.

Some may argue that adopting an entire compensation scheme would be overly complicated and that a simpler option would be for Indiana courts to broaden liability and reduce barriers so that plaintiffs may more easily prevail on their claims and receive compensatory damages. In *Shackil v. Lederle Laboratories, Div. of American Cyanamid, Co.* the Supreme Court of New Jersey found that broadening liability in order to provide compensation would not serve the goals of public policy.<sup>244</sup> In *Shackil*, the primary plaintiff, after being administered the DPT vaccine as an infant suffered severe decreases in brain functioning.<sup>245</sup> By the time of the suit, the plaintiff had difficulties proving a reasonable connection between the act or omission of the vaccine manufacturer and the damages.<sup>246</sup> This was due to “the extensive time that had elapsed between the inoculation and the lawsuit,”<sup>247</sup> and while not the same as latency, lapse of time is another barrier facing many plaintiffs who bring tort claims. Instead of expanding liability by allowing the plaintiff to shift to the defendant the burden of proof on the causation issue using various exceptions, the court found that the NCVIA fulfilled the goal of providing satisfactory compensatory relief to injured plaintiffs.<sup>248</sup>

To make litigation easier for plaintiffs to prevail, Indiana courts could adopt similar exceptions as those mentioned in *Shackil*, but this approach has not been adopted in Indiana.<sup>249</sup> Nor would it be the most tailored solution for providing residents harmed by living in contaminated public housing compensation. While the *Shackil* opinion was confined solely to the context of vaccines,<sup>250</sup> that context is analogous to providing public housing. Like how one societal goal supporting the public welfare is to encourage the use and development of needed drugs,<sup>251</sup> another is to promote the availability of safe and affordable housing for low-income families. A goal of the NCVIA was to provide compensation to plaintiffs “who would otherwise engage in protracted litigation against a vaccine manufacturer with the consequent risk of being denied recovery because of failure to prove the prima facie elements of a tort-law cause of action.”<sup>252</sup> The proposed Indiana IRCPHA would sever a similar goal. Both acts would eliminate the “traditional elements of proof that often prove fatal to a tort-law claim” and thus, provide a remedy while also supporting, rather than detracting

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244. *Shackil*, 116 N.J. at 158.

245. *Id.* at 159.

246. *Id.* at 163.

247. *Id.* at 159.

248. *Id.* at 158, 163.

249. *City of Gary v. Smith & Wesson*, 801 N.E.2d 1222, 1245 (Ind. 2003).

250. *Shackil*, 116 N.J. at 191.

251. *Id.* at 178.

252. *Id.* at 184.

from, public policy.<sup>253</sup> Like the NVCIA, an analogous act for Indiana public housing residents makes a means of compensatory relief available to the plaintiff, and “although potentially smaller than a jury award,” compensation would be certain.<sup>254</sup>

Expanding exceptions for proving causation and fault in the tort context would thus impose more liability on the providers of public housing. While this may help hold HUD and PHAs accountable, it may also make providing affordable and safe public housing more difficult. Since the 1990’s budget reductions and the Faircloth Amendment have limited progress in the construction and repairs of public housing.<sup>255</sup> Like the public policy of encouraging the development of necessary drugs, public policy also must encourage the development of safe and affordable public housing. The NCVIA, in its adoption was intended to maintain an adequate number of vaccine manufacturers and prevent a vaccine shortage.<sup>256</sup> The website for rental assistance in Indiana notes that “some PHAs have long waiting lists,”<sup>257</sup> and while there are seventeen PHAs in Indiana, less than half have public housing waitlists that can be applied to while all the others’ waitlists are closed.<sup>258</sup> As in *Shackil*, the issue cannot be resolved “simply by expanding tort-law liability” since the nature of the problem is complex.<sup>259</sup> The goal here is not to completely insulate public housing providers from liability but acknowledge that imposing excessive liability would discourage a highly useful activity to the public welfare.<sup>260</sup> At the same time, providing compensatory relief to harmed individuals and families is desirable.<sup>261</sup> Therefore, Indiana should adopt the proposed no-fault compensation scheme, and thus balance the interests of harmed residents with that of the public welfare. Like NCVIA, the proposed Indiana IRCPHA would allow awards to be granted to injured residents “quickly, easily, and with certainty and generosity.”<sup>262</sup>

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253. *Id.*

254. *Id.* at 186.

255. Jackson Gandour, “We Deserve to Have a Place to Live” *How US Underfunding Public Housing Harms Rights in New York, New Mexico, and Beyond*, HUM. RTS. WATCH (Sept. 27, 2022), <https://www.hrw.org/report/2022/09/27/we-deserve-have-place-live/how-us-underfunding-public-housing-harms-rights-new> [<https://perma.cc/6Z93-MK2H>].

256. *See Shackil*, 116 N.J. at 184.

257. *Rental Help: Indiana*, U.S. DEP’T HOUS. & URB. DEV., <https://www.hud.gov/states/indiana/renting> [<https://perma.cc/T238-NNS3>] (last visited Apr. 5, 2023).

258. *Public Housing Agency Websites: Indiana*, U.S. DEP’T HOUS. & URB. DEV., <https://www.hud.gov/states/indiana/renting/hawebsites> [<https://perma.cc/N96S-WCYM>] (last visited Apr. 5, 2023).

259. *Shackil*, 116 N.J. at 186.

260. *Id.* at 191.

261. *Id.* at 181.

262. *Id.* at 182.

## IV. CONCLUSION

Research has shown that low-income minority populations shoulder a disproportionate share of environmental exposures and related illnesses.<sup>263</sup> The fact that 66% of HUD users are racial minorities,<sup>264</sup> and an estimated 77,000 families live in public housing developments located within one mile of a hazardous waste sites,<sup>265</sup> supports this research. However, these statistics also indicate a clear opportunity for the HUD to rectify its failures in providing these communities a safe and healthy environment.

The story of the WCHC is the result of an unfortunate combination in the lack of communication and coordination by the EPA, HUD, and the ECHA, as well as gaps in regulation and oversight that allowed environmental assessments to go unperformed. While there are some safeguards that were put in place after the WCHC's construction, these proved insufficient. As the office of the inspector general found in their report, until HUD has a clear strategy to "review, research, and monitor" the public housing properties where human exposure to contamination from nearby Superfund sites was not under control, "the longer residents will live on potentially contaminated land, prolonging their exposure."<sup>266</sup> Thus, this Note ultimately advocated for two solutions. First, HUD's regulations could be further strengthened to promote the discovery of contamination sooner, and second, Indiana must adopt a no-fault compensation scheme to provide harmed residents recourse.

If the two solutions are adopted in Indiana this will have the potential to uncover contamination at many of the HUD-funded public housing that are within two miles about half of state's fifty-three Superfund sites.<sup>267</sup> For residents, especially for those that are the most vulnerable such as children, this could reduce the time they are exposed to hazardous chemicals and kick start their process of moving into cleaner housing. If the Indiana IRCPHA is enacted those harmed would also have a guaranteed source of compensation that could reimburse them for their pain and suffering and cover related health, rehabilitation, and other expenses. For children with elevated blood lead levels, this would mean additional support for them to access specialized educational programs, therapy, vocational training, and residential care, if needed.

This Note's proposals would likely face multiple challenges. First, there may be push back from PHAs that do not want to perform environmental assessments, there could be a presumption of having to perform these and include the results in its annual plans if the public housing it oversees is within

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263. Payne-Sturges & Gee, *supra* note 137, at 154.

264. *Public Housing Statistics*, IPROPERTYMANAGEMENT, <https://ipropertymanagement.com/research/public-housing-statistics#:~:text=45%25%20of%20HUD%2Dassisted%20individuals,housing%20assistance%20for%209.8%20years> [<https://perma.cc/22ZM-B7QN>] (May 9, 2022).

265. Coffey et al., *supra* note 6, at 11.

266. OFF. OF INSPECTOR GEN., *supra* note 3, at 18.

267. Saenz, *supra* note 149.

one mile of a superfund site. PHAs could be allowed to overcome this presumption and attendant requirements by proving that contamination is under control and not at a level that poses a substantial risk to the most vulnerable residents' health. In addition, Indiana's PHA's ranked second to last out of fifty states in "in winning just a fraction of the more than \$354 million" in federal funding to support public housing that was distributed between PHAs nationally.<sup>268</sup> The Indianapolis Housing agency has failed to apply for "at least \$4.4 million in annual federal funding."<sup>269</sup> If Indiana PHAs made improving the grants for funding a priority, this money would support the PHAs in performing environmental reviews.

Second, there may also be push back by lawmakers when it comes to adopting the proposed compensation scheme. The WCHC has not only shown that adopting such a program is needed, but with the high potential for the situation to repeat elsewhere in the state, lawmakers should be ready to address the outcry and possible lawsuits when it does occur. More importantly, funding is available. In 2022, Indiana had \$6.1 billion in reserves and \$1.24 billion more than expected.<sup>270</sup> This is more than enough to ensure that Indiana can continue to provide essential services while also adding some to a compensation program until revenue from fines and a risk tax can support the scheme fully.<sup>271</sup> While Indiana industry may push back against a risk tax, it could be set at a reasonable level and spread across many manufacturers and users of hazardous chemicals. In addition, industry most often operates in the overburdened communities that most need public housing and are part of the reason why public housing is often contaminated in the first place.

As time progresses, the inclusion of environmental justice considerations in legislation and the prioritization of environmental justice issues in regulations is only growing.<sup>272</sup> To align with environmental justice priorities and prevent issues like the ones epitomized by the ECHC, affirmative steps must be taken now. However, HUD's failure to amend its regulations as proposed in this Note, as well as the absence of this Note's compensatory scheme, leads only to the foregone conclusion that WCHC residents will not be the last to be exposed and

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268. Russ McQuaid, *Homeless funding failure tied to previous mayor's grant request*, CBS4 (May 8, 2016, 7:30 PM), <https://cbs4indy.com/news/homeless-funding-failure-tied-to-previous-mayors-grant-request/> [ <https://perma.cc/J2S9-ZZSA>].

269. Ko Lyn Cheang, *As Indy housing agency faces financial crisis, residents suffer the brunt of its neglect.*, INDYSTAR (June 2, 2022, 2:20 PM), <https://www.indystar.com/story/news/local/marion-county/2022/06/02/indianapolis-housing-agency-bedbugs-apartment-conditions-residents-neglect-property/9576197002/> [ <https://perma.cc/4SHR-MLBX>].

270. Kaitlin Lange, *State ends fiscal year with \$6.1 billion in reserves as lawmakers mull taxpayer refund*, INDYSTAR (July 15, 2022, 2:13 PM), <https://www.indystar.com/story/news/politics/2022/07/15/indiana-ends-fiscal-year-with-6-1-billion-in-reserves/65374284007/> [ <https://perma.cc/RN3Q-T54W>].

271. *Id.*

272. *Environmental Justice Update*, O'MELVENY (Jan. 31, 2022), <https://www.omm.com/resources/alerts-and-publications/alerts/environmental-justice-update-january-2022/> [ <https://perma.cc/XHV4-REXR>].

impacted by the negative environmental health impacts linked to nearby Superfund sites. In fact, it is unfortunate and likely that the WCHC's residents will not be the last to be exposed. Therefore, the solutions proposed by the Note are necessary and urgent.