

The EPA Needs to Improve Institutional Controls at the American Creosote Works Superfund Site in Pensacola, Florida, to Protect Public Health and IJA-Funded Remediation

April 15, 2024 | Report No. 24-E-0032



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Abbreviations

ACW	American Creosote Works Inc. (Pensacola Plant)
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
C.F.R.	Code of Federal Regulations
EPA	U.S. Environmental Protection Agency
GAO	U.S. Government Accountability Office
IIJA	Infrastructure Investment and Jobs Act
NWFWMD	Northwest Florida Water Management District
OIG	Office of Inspector General
OU	Operable Unit
RPM	Remedial Project Manager

Key Definitions

Institutional Controls Legal and administrative tools that help minimize the potential for human exposure to contamination and protect the integrity of the engineered remedy by limiting land or resource use and guiding human behavior.

Cover Image

Signage on the fence around the former wood-treatment facility at the American Creosote Works Inc. (Pensacola Plant) Superfund site. (EPA OIG image)

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At a Glance

The EPA Needs to Improve Institutional Controls at the American Creosote Works Superfund Site in Pensacola, Florida, to Protect Public Health and IJJA-Funded Remediation

Why We Did This Evaluation

To accomplish this objective:

The U.S. Environmental Protection Agency Office of Inspector General conducted this evaluation to determine whether the EPA's oversight and implementation of institutional controls will support effective use of Infrastructure Investment and Jobs Act funding at the American Creosote Works Inc. (Pensacola Plant) Superfund site in Pensacola, Florida. The EPA allocated approximately \$40 million in Infrastructure Investment and Jobs Act funds for the final remediation of this site.

Institutional controls are legal and administrative tools that help minimize the potential for human exposure to contamination and protect the integrity of the engineered remedy by limiting land or resource use and guiding human behavior. Examples of institutional controls include deed notices, restrictive covenants, land-use zoning, and informational mailers.

To support these EPA mission-related efforts:

- *Cleaning up and revitalizing land.*
- *Partnering with states and other stakeholders.*

To address this top EPA [management challenge](#):

- *Managing grants, contracts, and data systems.*

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What We Found

The institutional controls that the EPA has established at the American Creosote Works Inc. (Pensacola Plant) Superfund site in Pensacola, Florida, related to contaminated groundwater and soil are not sufficient to prevent potential exposure to contamination. For contaminated groundwater, the institutional control that the EPA relied on did not prevent well drilling or require groundwater well plugging and abandonment. The EPA also did not plan to secure permission from private property owners to plug and abandon any wells that the EPA encountered during remediation, potentially wasting at least \$1.3 million in remediation funds from the Infrastructure Investment and Jobs Act, or IJJA. For contaminated soil, the EPA did not implement institutional controls to prevent potential exposure to off-facility parcel contamination or to inform the wider public of the extent of contamination. Further, the EPA does not plan to implement institutional controls on these parcels after remediation to prevent the disturbance of unremediated soil, potentially wasting \$5.4 million in IJJA funds allocated for the parcels' remediation.

The EPA is also missing opportunities to communicate the risks associated with off-facility impacted parcels to the public using the public-facing site profile webpage. **Off-facility impacted parcels** is the phrase used to refer to dioxin-contaminated soil on surrounding neighborhood parcels of land outside of the former facility's boundaries. Information included in the physical record repository and published on the site profile webpage about site contamination and remedial activities, institutional controls, site boundaries, and public responsibilities is inaccurate, difficult to find and understand, or vague.

Without strong institutional controls and effective communication, the public remains at risk of exposure to residual contamination in the groundwater and soil from the ACW Superfund site.

Recommendations and Planned Agency Corrective Actions

We make eight recommendations to the regional administrator for Region 4 and one to the assistant administrator for Land and Emergency Management to improve the institutional controls at the American Creosote Works Superfund site. The EPA agreed with Recommendations 1, 2, 5, 7, 8, and 9, which are resolved with corrective actions pending. The EPA did not agree with Recommendations 3, 4, and 6, which remain unresolved.

Noteworthy Achievements

The site's remedial project manager of 14 years demonstrated meaningful engagement with the associated community and local stakeholders, positively influencing the relationship between the EPA and the public. This engagement has allowed the project manager to guide community behavior, find creative solutions, and facilitate remedial goals.



OFFICE OF INSPECTOR GENERAL
U.S. ENVIRONMENTAL PROTECTION AGENCY

April 15, 2024

MEMORANDUM

SUBJECT: The EPA Needs to Improve Institutional Controls at the American Creosote Works Superfund Site in Pensacola, Florida, to Protect Public Health and IJJA-Funded Remediation
Report No. 24-E-0032

FROM: Sean W. O'Donnell, Inspector General *Sean W O'Donnell*

TO: Jeaneanne Gettle, Acting Regional Administrator
Region 4

Barry Breen, Principal Deputy Assistant Administrator
Office of Land and Emergency Management

This is our report on the subject evaluation conducted by the U.S. Environmental Protection Agency Office of Inspector General. The project number for this evaluation was [OSRE-FY23-0054](#). This report contains findings that describe the problems the OIG has identified and corrective actions the OIG recommends. Final determinations on matters in this report will be made by EPA managers in accordance with established audit resolution procedures.

The Office of Land and Emergency Management and Region 4 have the primary responsibility for the issues discussed in this report.

In accordance with EPA Manual 2750, your office provided acceptable planned corrective actions for Recommendations 1, 2, 5, 7, 8 and 9. These recommendations are resolved. A final response pertaining to these recommendations is not required; however, if you submit a response, it will be posted on the OIG's website, along with our memorandum commenting on your response.

Action Required

Recommendations 3, 4, and 6 are unresolved. EPA Manual 2750 requires that recommendations be resolved promptly. Therefore, we request that the EPA provide us within 60 days its responses concerning specific actions in process or alternative corrective actions proposed on the recommendations. Your response will be posted on the OIG's website, along with our memorandum commenting on your response. Your response should be provided as an Adobe PDF file that complies with the accessibility requirements of section 508 of the Rehabilitation Act of 1973, as amended. The final response should not contain data that you do not want to be released to the public; if your

response contains such data, you should identify the data for redaction or removal along with corresponding justification.

We will post this report to our website at www.epaoig.gov.

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Purpose

The U.S. Environmental Protection Agency Office of Inspector General [initiated](#) this evaluation to determine whether the EPA's oversight and implementation of institutional controls will support effective use of Infrastructure Investment and Jobs Act, or IIJA, funding at the American Creosote Works Inc. (Pensacola Plant), or ACW, Superfund site in Pensacola, Florida. The IIJA, Pub. L. 117-58 (2021), was signed into law on November 15, 2021.

Top Management Challenge Addressed

This evaluation addresses the following top management challenge for the Agency, as identified in the OIG's *U.S. Environmental Protection Agency Fiscal Year 2024 Top Management Challenges [report](#)*, issued November 15, 2023:

- Managing grants, contracts, and data systems.

Background

Primer on the ACW Superfund Site

- The site is a former wood-treatment facility in Pensacola.
- The site operated from 1902 to 1981.
- The site was added to the National Priorities List in 1983 because of contamination from creosote. Further investigation identified polycyclic aromatic hydrocarbons and dioxins in the soil, sediment, and groundwater.
- Dioxins can cause cancer, affect reproductive systems, and cause developmental problems. Dioxins can also damage the immune system and interfere with hormones.
- The planned IIJA-funded remediation includes excavating and replacing contaminated soil in the neighborhood near the former facility, installing a permanent cap over contaminated soil at the former facility, installing an underground wall to isolate the contaminated soil and groundwater at the former facility, and treating the contaminated groundwater.
- The proposed remediation timeline is from late 2023 through early 2027.

EPA Authority to Require the Cleanup of Contaminated Sites

The Comprehensive Environmental Response, Compensation, and Liability Act, or CERCLA, authorizes the EPA to require property owners and other potentially responsible parties to clean up contaminated sites.¹ The EPA maintains a list of sites that are considered priorities for cleanup based on the relative threat to human health and the environment posed by each site's contamination. This list is called the National Priorities List. CERCLA created a trust fund, commonly referred to as the Superfund, to enable the EPA to

¹ A **potentially responsible party** is a person or persons who may be liable for certain contamination response costs under CERCLA. A potentially responsible party could be a current or former owner or operator of a facility or vessel; those who arrange for transport, disposal, or treatment of hazardous substances; or those who accept hazardous substances for transport or disposal or select a disposal site from which there is a spill or release of hazardous substances that triggers a response under CERCLA.

pay for response and cleanup costs at contaminated sites in certain contexts. Appendix A contains more information on the Superfund.

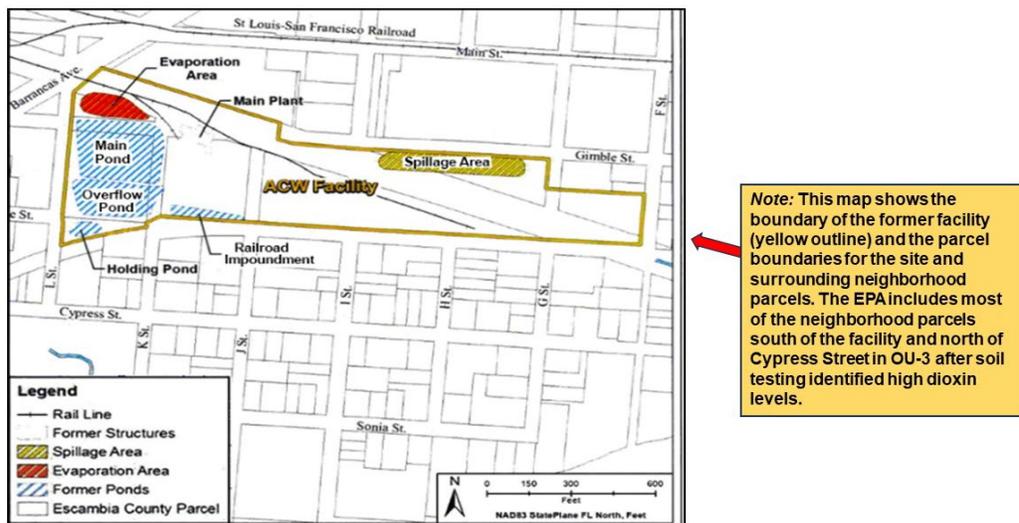
To address contamination more efficiently, the EPA divides some Superfund sites into distinct areas called **operable units**, or **OUs**. The EPA uses a site’s geographic areas, specific contaminants of concern, or contaminated media—for example, groundwater or soil—requiring unique actions to determine the number and scope of OUs. The EPA documents these OUs in a **Record of Decision**, which is the plan for the cleanup of a site. As a cleanup progresses, the EPA may redefine the OUs and update official site documents.

Contamination and the Cleanup at the ACW Superfund Site in Pensacola

The ACW Superfund site is a former wood-treatment facility in Pensacola that operated from 1902 until 1981. It declared bankruptcy in 1982 and was listed on the National Priorities List in 1983 because of residual contamination from creosote. Further investigations identified polycyclic aromatic hydrocarbons and dioxins in the soil, sediment, and groundwater. According to the EPA, dioxins are extremely persistent and highly toxic. They can cause cancer, as well as reproductive and developmental problems. They can also damage the immune system and interfere with hormones.

Contamination from the site of the former wood-treatment facility spread to nearby properties in multiple spillage events. Many of these nearby properties are private residences. The ACW Superfund site has three OUs. OU-1 comprises the former facility, which is the source of the contamination, and its drainage ditches. OU-2 includes the creosote and carcinogenic polycyclic aromatic hydrocarbon-contaminated groundwater plume under the former facility, which extends beyond the geographic boundary of the former facility. OU-3 consists of the soil contaminated with dioxins and other organic compounds on surrounding neighborhood parcels of land outside the former facility’s boundaries, which we refer to as **off-facility impacted parcels**. Figure 1 illustrates the ACW Superfund site boundaries.

Figure 1: Map of the ACW former facility and surrounding neighborhood parcels



Source: 2017 Record of Decision for the ACW Superfund site. (EPA and EPA OIG image)

The EPA collaborated with the Florida Department of Environmental Protection and the U.S. Army Corps of Engineers to plan and complete various remedial actions at the ACW Superfund site. As of May 2023, these actions have included removing soil, sludge, and sediment from drainage ditches outside the facility; installing a temporary cap over the contaminated materials; implementing a groundwater treatment and monitoring system to address contamination in OU-2; and installing land-use controls to prevent site access and protect human health.

Land-Use Controls

The EPA uses a combination of land-use controls, including engineering controls and institutional controls, to protect human health and the environment and the integrity of the remedial actions by limiting land or resource use and guiding human behavior. **Engineering controls** are physical structures, such as containment systems and fences. **Institutional controls** are administrative and legal controls, such as zoning, public advisories about contamination at a site, and restrictions on permitted uses of private property. Table 1 summarizes these types of land-use controls.

Table 1: Types of land-use controls

Type	Definition	Examples
Engineering controls	Engineered or physical barriers to prevent access to contaminated areas.	Fences, engineered caps, and security measures.
Institutional controls: proprietary controls	Controls on private land or single parcels that can prohibit or restrict activities or use. The EPA or another stakeholder, such as a state, tribe, or potentially responsible party, can make agreements with the property owner and enforcement authority.	Restrictive covenants and easements.
Institutional controls: governmental controls	Restrictions imposed on resource or land use by the authority of a governmental entity.	Zoning, building codes, groundwater-use regulations or restrictions, and fishing restrictions.
Institutional controls: informational controls	Information and notifications provided to local communities, site users, or other interested persons that indicate residual contamination remains on site. These typically do not establish legal duties or prohibitions.	State registries of contaminated sites, deed notices, tracking systems, fish- and shellfish-consumption advisories, and signage.
Institutional controls: enforcement and permit tool controls	Legal tools that limit site activities or require performance of specific activities.	Federal facility agreements and consent decrees.

Source: OIG analysis of CERCLA implementing regulations (40 C.F.R. part 300) and EPA institutional control guidance. (EPA OIG table)

The EPA implements institutional controls, as appropriate, upon discovery of contamination and during the cleanup process. It also implements such controls when residual contamination remains in place at a level that does not allow for unlimited use of the land or resources. The EPA may implement the following institutional controls individually or in combination at a site:

- Proprietary controls: The EPA may work with a private property owner and the local governmental entity to restrict digging past a certain soil depth to protect prior remediation activities or to prevent human exposure to health hazards. These controls affect individual parcels.
- Governmental controls: The EPA may work with a state, tribal, or local government to implement land-use or zoning restrictions on a property. These restrictions may prohibit future residential use of a remediated property in perpetuity. Government entities responsible for overseeing these controls have enforcement authority.
- Informational controls: The EPA may send informational mailers to private property owners to inform them of contamination on their property or of a contaminated site near their property, advising them not to consume groundwater or bring contaminated soil into their homes. The EPA may also post information on physical signage at a site or an impacted area. However, unlike proprietary and governmental controls, there is no enforcement mechanism included with these types of controls. The EPA relies on members of the public to comply with the advice to protect their health against contaminant exposure and does not pursue enforcement action against individuals failing to adjust their behavior in response to informational controls.
- Enforcement and permit tools: In some instances, these tools are negotiated, such as by a **consent decree**, which is an order issued by a judge with the consent of the EPA and the other parties covered by the decree. In other instances, these tools are not negotiated, such as with an administrative order in which the EPA directs a party potentially responsible for contamination to clean up a site or cease certain activities.

IIJA Investment and Future Remediation Plans at the ACW Superfund Site

The IIJA appropriated over \$60 billion to the EPA to implement infrastructure-related environmental programs. Of this, approximately \$3.5 billion was appropriated to clean up Superfund sites. The ACW Superfund site is one of 116 National Priorities List sites to which the EPA allocated approximately \$1 billion in fiscal year 2022 IIJA funds to initiate or make progress on delayed Superfund cleanup projects. The last engineered remedial action at the ACW Superfund site was in 2016. Since 2016, the EPA paused remedial actions while awaiting additional funding to address the remaining contamination in the soil and groundwater. The EPA allocated approximately \$40 million in IIJA funds for the final remediation of the ACW Superfund site. The planned IIJA-funded remediation will include approximately \$5.4 million for excavating and replacing soil in privately owned off-facility impacted parcels in OU-3. The EPA will excavate soil around large trees; hard surfaces, such as driveways; and existing structures, such as houses and foundations. Remediation will also include installing a permanent cap over contaminated soil in OU-1, engineering an underground wall to isolate the contaminated soil and groundwater at the facility, and treating the groundwater using thermal extraction to remove the creosote in OU-2.

Responsible Offices

EPA Region 4 delegates site-management responsibilities to the remedial project manager, or RPM, and a site attorney from its Office of Regional Counsel. The RPM directs and coordinates all cleanup efforts and works with the site attorney to implement and oversee institutional controls at a site.

The EPA's Office of Land and Emergency Management and the Office of Enforcement and Compliance Assurance are responsible for providing guidance regarding and oversight of Superfund activities. The Office of Land and Emergency Management supports the ten EPA regions by developing policy and program management for Superfund sites through all phases of remediation. The Office of Enforcement and Compliance Assurance supports the Office of Land and Emergency Management by assisting in resolving corrective actions, developing institutional control training and guidance documents, providing case support to EPA regional offices, developing model language for settlement agreements, and finding ways to reduce barriers to institutional control implementation. The Office of Enforcement and Compliance Assurance also issues guidance describing how to use state cooperative agreements, such as grants, to implement and manage institutional controls.

In fiscal year 2023, the Office of Land and Emergency Management's budget from annual appropriations legislation was approximately \$1.4 billion, and the Office of Enforcement and Compliance Assurance's budget was approximately \$608.6 million. These figures do not include amounts from supplemental appropriations legislation, such as the IIJA and the Inflation Reduction Act.

Noteworthy Achievements

Based on our interviews with private property owners adjacent to the site, the ACW Superfund site's RPM of 14 years demonstrated meaningful engagement with the affected community. Members of the community credited the RPM with proactively encouraging their involvement in cleanup plans for the site. They considered the RPM their main source of valuable information and described calling the RPM directly if they observed any concerning conditions related to the ACW Superfund site. The RPM's communication efforts sufficiently informed the community of remedial actions and institutional controls. The RPM's engagement with the local government also allowed the RPM to innovate within unique circumstances. Specifically, in Florida's Escambia County, Superfund sites can be purchased by any member of the public through the delinquent tax-collection process. Accordingly, Escambia County sold some parcels of the former wood-treatment facility at auction more than once. The RPM established a relationship with the Escambia County Tax Collector to implement a custom "Superfund" notification for the former wood treatment facility's parcels. This alert allowed the RPM to communicate with prospective buyers and discuss the responsibilities associated with owning property on a Superfund site, which resulted in most prospective buyers choosing not to purchase the affected parcels. This effort allowed the RPM to ensure that IIJA-funded remedial actions could proceed unimpeded.

Scope and Methodology

We conducted this evaluation from March 2023 to January 2024 in accordance with the *Quality Standards for Inspection and Evaluation*, published in December 2020 by the Council of the Inspectors General on Integrity and Efficiency. Those standards require that we perform the evaluation to obtain sufficient and appropriate evidence to support our findings.

We reviewed site documents and conducted interviews with relevant stakeholders. To obtain an understanding of site history, contaminants of concern, remedial objectives, and historical implementation of institutional controls, we reviewed Records of Decision; Five-Year Review reports;² the EPA’s “American Creosote Works, Inc. (Pensacola Plant) Pensacola, FL” site profile [webpage](#) (hereafter referred to as the EPA’s ACW webpage); and the EPA’s “Cleanups in My Community” geographic information system database.³ We also reviewed well-survey reports and other site documentation containing groundwater well information from 1994 through 2021 for 322 individual private properties to understand well proliferation in the groundwater delineation area.⁴

We conducted interviews and a site visit to understand partnerships, practices, and policies related to implementing, monitoring, and enforcing institutional controls at the ACW Superfund site. We interviewed 36 stakeholders, including private property owners, impacted by the site’s contamination and remediation activities; staff members from the EPA Office of Land and Emergency Management, Office of Enforcement and Compliance Assurance, and Region 4; and representatives from the U.S. Army Corps of Engineers, Florida Department of Environmental Protection, Florida Department of Health, Escambia County Tax Collector, and City of Pensacola.

Prior Reports

We reviewed the reports from the EPA OIG and the U.S. Government Accountability Office, or GAO, related to Superfund site management and institutional controls, including:

- EPA OIG Report No. [08-P-0169](#), *Hazardous Waste Sites: Improved Controls Would Reduce Superfund Backlogs*, issued June 2, 2008, which recognized issues with Superfund site-remediation tracking and the need for improved internal controls and communication

² A **Five-Year Review** is an evaluation of remedial actions at a site—including institutional controls—to ensure they remain protective of human health and the environment. These evaluations take place every five years and are required by CERCLA and implementing regulations when hazardous substances, contaminants, or pollutants are left on a site and prevent unlimited use of the resources at the site or could potentially cause exposure to the public.

³ A **geographic information system** is a computer system that allows users to perform analyses of data associated with specific locations and create and display results on a map. The system can help users quickly make connections and identify patterns. For example, a user may be able to compare mapped locations of irrigation wells with mapped boundaries of public water service areas to determine whether homeowners with access to public water still install groundwater wells.

⁴ A **groundwater delineation area** is an area of land under which the groundwater is either contaminated or vulnerable to contamination.

between site stakeholders to avoid delays in the cleanup process. The report made four recommendations related to the assignment of responsibilities to EPA and state stakeholder staff, the establishment of criteria for monitoring progress, the assumption of the lead agency role by the EPA for the 14 sites reviewed in the report, and the updating of EPA Superfund site profile webpages to better communicate site cleanup progress to the public.

- GAO Report [GAO-05-163](#), *Hazardous Waste Sites: Improved Effectiveness of Controls at Sites Could Better Protect the Public*, published January 28, 2005, which found that the EPA should incorporate more detailed information about controls in decision documents to aid in the planning, monitoring, and evaluating of land-use controls at Superfund sites. The GAO also recognized the need for a comprehensive institutional control tracking system within the Agency to facilitate these activities. It made four recommendations related to clarifying Agency guidance so that staff better understand the function and use of institutional controls; providing more detailed consideration in planning, monitoring, and enforcing institutional controls; evaluating the sufficiency of controls put in place during site closeout; and accurately tracking controls.

The EPA concurred with all recommendations from these reports and implemented corrective actions to address them.

Results

In accordance with CERCLA regulations, institutional controls chosen as part of a response should be adequate and reliable to manage exposure to residual contamination.⁵ However, the EPA is not implementing adequate or reliable institutional controls at the ACW Superfund site, leaving the public at risk for exposure to contaminated groundwater and soil. The institutional control that the EPA has historically relied on to prevent potential exposure to residual contamination in the groundwater at the ACW Superfund site, namely a groundwater delineation area, did not work as intended to prevent well drilling or to require groundwater well plugging and abandonment. Therefore, private property owners were able to drill new wells, and existing wells persisted. Although the Florida and Pensacola governments did not have laws or regulations that the EPA could have leveraged as institutional controls to restrict soil-disturbing activities at privately owned off-facility impacted parcels, the EPA could have established other types of institutional controls. For example, the Agency could have established proprietary or informational controls to reduce potential exposure to off-facility contamination or to inform the wider public of the extent of contamination and to protect existing and planned investments in remediation at the site. The EPA missed the opportunity to identify and correct these issues because it did not use the tools and agreements for documenting and tracking institutional controls that were available. Furthermore, while the EPA's remediation plans include institutional controls for the former facility, they do not include institutional controls to safeguard \$5.4 million of the IJA funds that are allocated for the remediation of privately owned off-facility impacted parcels. Given that remediation

⁵ 40 C.F.R. § 300.430.

can take years, implementing effective institutional controls is important for protecting public health until remediation is complete or in case the site cannot be fully restored for unrestricted use.

We also found that the EPA does not use all available tools to communicate the risks of certain activities near the ACW Superfund site. According to federal law and guidance, information that the EPA provides to the public should be authoritative, clear, and reliable. However, the EPA's information about ACW site contamination and remedial activities, institutional controls, site boundaries, and public responsibilities is inaccurate, difficult to find and understand, or vague. For example, the EPA's ACW webpage generally defines institutional controls, rather than describing what the specific controls implemented at the ACW Superfund site are, how the public can responsibly comply with the controls, and how the implemented institutional controls could protect public health. Further, CERCLA regulations require that the administrative record be available for public inspection.⁶ However, neither the physical nor the electronic records related to the ACW Superfund site are complete. Without proper and accurate communication of the risks at the site, interested stakeholders may not have the information they need to understand the history of decision-making at the site or to adjust their behavior to comply with restrictions and to protect their health.

Institutional Controls to Prevent Potential Exposure to Contamination Were Insufficient or Unimplemented

For the ACW Superfund site, the institutional controls related to contaminated groundwater are not sufficient to reduce the potential of exposure to contamination. The governmental control that the EPA relied on to prevent groundwater use did not prevent well drilling or require groundwater well plugging and abandonment. Further, the EPA did not implement proprietary or informational controls related to contaminated soil to prevent potential exposure to off-facility contamination or to inform the wider public of the extent of the contamination. The EPA did not identify these issues and ensure that institutional controls were sufficiently reliable and enforceable because it did not use the tools and agreements for documenting and tracking institutional controls that were available.

Regarding Contaminated Groundwater, Governmental Controls Were Not Sufficient to Prevent Potential Exposure to Contamination

Institutional controls chosen as part of a response should be adequate and reliable to manage exposure to untreated or residual contamination. The EPA worked with the Northwest Florida Water Management District, or NFWFMD, to establish governmental controls at the ACW Superfund site to meet this purpose and to prevent potential human exposure to groundwater contaminants. Specifically, when developing the original Record of Decision for OU-2 in 1994, the EPA noted that the NFWFMD was implementing a groundwater delineation area around the ACW Superfund site. In the Record of Decision, the EPA described the groundwater delineation area as a device to deny permits for new groundwater wells and claimed that the EPA would plug and abandon existing wells with written

⁶ 40 C.F.R. § 300.805.

consent of the private property owners. The EPA also expressed confidence in the NFWFMD's ability to enforce a ban on well installation.

Wells Installed Despite Permit Restrictions

In 1994, the EPA worked with the Florida Department of Environmental Protection and the NFWFMD to implement a groundwater delineation area that was intended to prevent groundwater use and exposure by denying any permit applications to install groundwater wells. However, because groundwater delineation areas do not prohibit well installation, one private facility successfully obtained permits for groundwater irrigation wells connected to the contaminated groundwater supply in 1997 and 2004.

The same private facility applied for a third well permit in 2015. After various exchanges between the EPA's RPM and the private facility on liability concerns related to groundwater use, the private facility withdrew its permit application. The following year, in 2016, the EPA excavated over 4,000 cubic yards of contaminated soil from a parcel adjacent to this private facility, replacing the soil with clean fill. However, the EPA never decommissioned the wells that were installed on the property in 1997 and 2004, and the wells were still in use by the private facility as of our site visit in May 2023.

The EPA is not responsible for sampling these private wells for contaminants and had not done so at the time of our fieldwork. While the private facility owner could request assistance from county health officials in determining any health concerns related to the use of the wells, the RPM did not know whether the owner pursued this avenue and sampled the wells. It is important to note that, to our knowledge, the private facility owner followed appropriate processes to obtain permits for the wells on the owner's property. The groundwater delineation area functioned as designed, but not as the EPA intended. Using the groundwater delineation area as a governmental control to prevent groundwater use is a deterrent to many private property owners, but not all.



A well on the private facility's property within the delineation area. The brown staining is indicative of groundwater use in that area. (EPA OIG image)

The groundwater delineation area did not reliably prevent groundwater use as the EPA intended. Groundwater delineation areas do not ban or prevent well permitting. Rather, NFWFMD officials explained that they provide information to the permit applicant that typically results in the applicant

choosing to withdraw the application. Nevertheless, as detailed in the green box above, we identified permits issued for groundwater irrigation wells at a single private property in 1997 and 2004, after the implementation of the groundwater delineation area. Further, the groundwater delineation area designation alone does not force the plugging and abandonment of existing groundwater wells on privately owned parcels. NFWFMD officials explained that they do not systematically survey private properties for new or existing wells. Instead, the NFWFMD relies on communication from the EPA or the Florida Department of Environmental Protection when a permit for well plugging and abandonment is necessary.

Public comments in the 1994 Record of Decision for OU-2 provided early signals that the groundwater delineation area was not sufficient to prevent well installation. One commenter stated that the NFWFMD would not be able to enforce a “ban on the installation of bootleg wells,” or unpermitted wells, near the site. In response, the EPA said that it would conduct well surveys as part of its Five-Year Reviews to identify any unpermitted wells and would work with private property owners to plug and abandon any existing wells with the owner’s consent. However, surveyors for the EPA inconsistently implemented the well surveys; thus, the associated survey reports may not accurately reflect the proliferation of groundwater wells on properties within the groundwater delineation area.

Based on our review of groundwater well-survey reports and other information, the EPA did not conduct well surveys between 2002 and 2013. Further, surveys included only 61 percent of the properties listed inside the groundwater delineation area. Surveyors were also subject to the inherent limitations of conducting surveys without access to private properties. At 81, or roughly 33 percent, of the 248 properties where the surveyor determined there was no well, surveyors made determinations based on what they could see without accessing the property. For another 33, or about 13 percent, of these 248 properties, the surveyors relied on neighboring resident testimony to determine the existence or use of wells. While the testimony is better than a lack of any basis for well existence data, it is less reliable than direct observation because neighbors, tenants, or owners may be misinformed or may knowingly withhold information. This is particularly troubling when testimony conflicts with prior observations. For example, surveyors in 2021 reported that no well infrastructure existed at seven properties based solely on resident testimony; however, previous surveys confirmed the presence of well infrastructure at the same addresses.

A public commenter to the 1994 Record of Decision for OU-2 asked whether the EPA would force people to plug and abandon their private wells. In response, the EPA encouraged private property owners to voluntarily allow the Agency to plug and abandon the wells since the water would likely never be fit for consumption and stated that it would investigate “other means to effect well closure if necessary.” However, when the EPA identified groundwater irrigation wells during Five-Year Review surveys, the EPA did not take steps to plug and abandon the wells, claiming funding deficiencies.

As of May 2023, the EPA did not plan to require residents to plug and abandon any wells encountered during the upcoming remediation of OU-3. During our site visit, we observed well infrastructure on nine, or roughly 14 percent, of the 66 properties in OU-3 slated for soil remediation. Five of these appeared to

be in use. We also observed an additional four properties that potentially had well infrastructure. At three of these properties, the well infrastructure appeared to be in use. Given the inability to reliably identify groundwater wells based on surveys, the EPA has a unique opportunity during remediation to both identify wells and properly plug and abandon them. Allowing the persistence of groundwater wells increases the potential for direct exposure to contaminated groundwater and could waste the approximately \$1.3 million that the EPA allocated for the IJJA-funded remediation efforts at these properties because contaminated groundwater could recontaminate the soil.

Regarding Contaminated Soil, the EPA Did Not Implement Proprietary or Informational Controls to Prevent Potential Exposure at Off-Facility Impacted Parcels

The relevant state and local governments did not have laws or regulations that the EPA could leverage as governmental controls to restrict soil-disturbing activities at privately owned off-facility impacted parcels in OU-3. Restrictive covenants, which are a type of proprietary control, are the best way to restrict soil movement at such locations. However, according to the ACW Superfund site's RPM, the EPA did not pursue restrictive covenants with private property owners of these off-facility impacted parcels because of the effort required to establish them and the potential negative effect they could have on the EPA's relationship with the community. Instead, the EPA relied on the community to distribute information and the RPM's verbal direction to private property owners to guide the owners' land-use choices.

Furthermore, the EPA missed opportunities to implement informational controls to inform the public of soil contamination on OU-3's private parcels. As the community's real estate turns over, new private property owners take possession of parcels, and increased construction activity takes place as property owners renovate or demolish structures, there will be a gap in the knowledge related to contamination around the former facility. Without continuous risk communication, the potential for exposure to contaminated soil in OU-3 increases. However, other than the RPM's engagement with the community, the EPA did not implement informational controls regarding the soil contamination in OU-3. The Florida Department of Environmental Protection sent an initial notice of contamination to property owners in 2008 as required after notification from the EPA. These informational mailers ceased in 2012, and the EPA did not subsequently adopt this institutional control.⁷ While the RPM explained that the EPA provided results to property owners after it conducted sampling for the 2017 Record of Decision, this was a static communication regarding contamination-related risks, and the EPA has not sent mailers to parties that have joined the community since then.

⁷ Officials from the City of Pensacola also did not adopt this informational control because they said they did not want to give the impression that the city was leading the remediation efforts.



Soil of unclear origin or contamination status outside the perimeter fence of the ACW Superfund site. Several community members stated the soil is from an area resident who removed the soil from the resident's yard for a home improvement project and deposited it here, making it possibly contaminated. The EPA contests this, stating the soil was deposited here for road repairs and is not contaminated. (EPA OIG image)

A system indicator, such as an alert triggered within the City of Pensacola's construction permitting department when a party applies for a permit in the neighborhood surrounding the former facility, would also act as an informational control to prevent soil contamination from spreading outside of OU-3. A city official explained that a system indicator would inform contractors or other construction permit applicants of soil contamination and health hazards from contact with site soil at parcels in OU-3. Construction activities by property owners may include structural or landscape renovations, installation of in-ground pools, and removal of a dwelling to build a new structure. Such activities can cause contaminated soil to spread outside the original site's boundaries without the EPA's knowledge or any state or local mechanism for tracking this contaminated soil or ensuring its proper disposal. As of May 2023, those who submit construction permit applications do not encounter any alerts for the parcel to inform them of soil contamination, further complicating the tracking and disposal of contaminated soil from impacted parcels. Members of the public, including the individuals who perform construction activities and people at locations where contaminated soil may be transported or deposited, remain at risk of exposure to contamination.

Although the 2017 Record of Decision for the ACW Superfund site suggested restrictive covenants as a possible institutional control to complement engineering controls to protect the planned remedy for OU-1, the EPA does not plan to pursue implementation of restrictive covenants or other institutional controls for private parcels in OU-3 after remediation. The remediation plan for OU-3 provides for the excavation and replacement of soil that is not covered by structures or hard surfaces, such as driveways or patios, on private parcels. In the absence of restrictive covenants for parcels remediated in OU-3, it is unclear how the EPA will ensure that the remaining 11,400 cubic yards of soil underneath buildings and other hard surfaces will remain undisturbed to prevent any recontamination through soil spreading or exposure by removal of these structures or hardscaping. Disturbance of such soil could recontaminate remediated soil, waste up to \$5.4 million in IJA funds to be spent on soil remediation at these properties, and expose the public to potential health risks.

The EPA Did Not Use the Tools Available for Documenting and Tracking Institutional Controls

There is no documentation of a common understanding between the EPA and state and local stakeholders regarding oversight of institutional controls related to contaminated groundwater from the ACW Superfund site. The lack of formal agreements between the EPA and stakeholders hinders the oversight and enforcement of groundwater-use restrictions. Specifically, the EPA does not have a memorandum of agreement with the NFWFMD, the entity that issues well permits and enforces well plugging and abandonment for the groundwater delineation area. While the EPA believed that the NFWFMD would deny permits based on the existence of a delineation area, this did not always occur because the presence of groundwater delineation areas does not require the NFWFMD to do so. If the EPA was depending on the NFWFMD to deny permits as an institutional control, a memorandum of agreement would have made the EPA's expectations and the NFWFMD's commitments clear.

The EPA also did not use available tools to help oversee institutional controls and to ensure available institutional controls were as enforceable and protective as possible. Specifically, the EPA did not create an Institutional Control Implementation and Assurance Plan for the ACW Superfund site. An ***Institutional Control Implementation and Assurance Plan*** is an EPA document that outlines the details of a site's institutional controls and the parties responsible for monitoring and enforcing those controls. The document also provides an opportunity to clarify the objectives of established institutional controls; to identify any gaps in various controls; and to help the EPA identify, establish, and track the appropriate agreements. EPA staff involved in providing guidance and assistance to RPMs on institutional controls assert that Institutional Control Implementation and Assurance Plans are most beneficial at complex sites with multiple stakeholders and private property owners or where the EPA is not the enforcement entity, which is characteristic of the ACW Superfund site. However, the EPA does not require RPMs to create Institutional Control Implementation and Assurance Plans for the Superfund sites that they manage, including complex sites. An Institutional Control Implementation and Assurance Plan could have clarified the EPA's expectations about how the groundwater delineation area would work and identified more reliable mechanisms to ensure wells did not persist or proliferate. It also could have

made it clear that there was no control over the soil movement and detailed the risks associated with this condition.

There are also no detailed entries describing the ACW site's institutional controls in the "Institutional Controls" module of the EPA's ***Superfund Enterprise Management System***, which is the EPA's records repository for Superfund site information. Instead, disparate documents in the management system contain information about the site's institutional controls. EPA staff noted that Five-Year Review reports released since 2017 include summary tables of their sites' institutional controls. While this is a step in the right direction, a detailed description of all institutional control information in one document in the system could facilitate implementation and oversight, reduce the opportunity for error, allow for continuity and more effective review and tracking by various EPA RPMs, and aid in identifying any gaps in institutional controls as remedial actions progress.

The EPA Is Missing Opportunities to Communicate the Risks Associated with Off-Facility Impacted Areas to the Public

According to Office of Management and Budget Memorandum [M-17-06](#), *Policies for Federal Agency Public Websites and Digital Services*, "information disseminated from Federal Government websites," which includes the EPA's websites, "is expected to be authoritative and reliable."⁸ However, the EPA's geographic information system database file for the ACW Superfund site does not accurately represent the extent of site contamination. The database only includes a polygon that represents the former facility's boundary, incorrectly indicating that the contamination is limited to OU-1. The polygon does not include the boundary for OU-3's off-facility impacted parcels. This inaccuracy may mislead interested parties, such as parcel owners, real estate agents, and contractors, causing them to believe that there is no soil contamination to be addressed outside OU-1. State and local agencies, such as the Florida Department of Environmental Protection, and water management districts like the NWFWMMD, also rely on the EPA's geographic information system database to make determinations for permitting, resulting in possible inadvertent exposure to site contamination through inaccurate data. Interested stakeholders may not know about the contamination, the risks of exposure associated with certain activities, and the associated health effects. They also may not know how to adjust their behavior to comply with restrictions or to protect their health.

The Plain Writing Act of 2010 requires federal agencies to use writing that is "clear, concise, well organized, and follows other best practices appropriate to the ... intended audience."⁹ Further, when using a federal website, the [Federal Plain Language Guidelines](#), which was developed to assist agencies in complying with the Plain Writing Act, advises agencies that their content is not clear unless users can "[f]ind what they need, [u]nderstand what they find, [and] [u]se what they find to meet their needs."¹⁰ Accordingly, information on what the risks associated with the ACW Superfund site are and how

⁸ Office of Management and Budget memorandum [M-17-06](#), *Policies for Federal Agency Public Websites and Digital Services*, November 8, 2016.

⁹ Pub. L. 111-274 (2010).

¹⁰ Plain Language Action and Information Network, *Federal Plain Language Guidelines*, Section IV(d), "Write web content," March 2011, Revision 1, May 2011.

members of the public should adjust their behavior to protect their health should be easy to find and understand. However, interested members of the public seeking this information may not find what they need. In the [section](#) regarding institutional controls on the EPA's ACW [webpage](#) called "Activity and Use Limitations," the EPA generally defines institutional controls and provides a link to more information about what institutional controls are. It does not, however, provide specific information about any institutional controls at the site. Instead, it provides one sentence with information specific to the ACW Superfund site, stating that there is fencing around the former facility to prevent access to contaminated soil. The webpage's "Activity and Use Limitations" [section](#) does not provide more detailed information about the activity or use limitations at or near the former facility. It also does not describe the groundwater delineation area or advise the public not to disturb the soil in off-facility impacted parcels. While the public can access decision documents, such as Records of Decision, on the EPA's ACW webpage, these are long, technical documents unsuitable for public risk communication because the public is unlikely to understand or read lengthy, complex, and technical documentation.

The Complete Administrative Record Is Not Available for Inspection

CERCLA regulations require the EPA to maintain a copy of a site's administrative record "at or near" the site for public inspection.¹¹ A site's administrative record contains the documents, such as verified sampling data, public health evaluations, guidance on risk or exposure assessments that may have formed the basis for selecting a certain remedy, community relations plans, and Records of Decision, that support the rationale for selecting a response. The administrative record also typically includes an index of documents contained in the record to facilitate finding specific information.¹²

The ACW Superfund site has both physical and electronic documents available for public inspection. However, neither set of documents contains a complete administrative record. The EPA's ACW webpage directs the public to the John C. Pace Library at the University of West Florida to view the repository containing the physical administrative record. However, as of May 2023, this record was incomplete and did not contain Records of Decision or other decision documents.

¹¹ 40 C.F.R. § 300.805(a).

¹² 40 C.F.R. § 300.810(a)(6).



The ACW Superfund site's physical administrative record at the University of West Florida John C. Pace Library archive. (EPA OIG image)

While the ACW Superfund site's repository contained a 2018 *Community Involvement Plan*, it did not contain documents demonstrating historical public participation in the different remedy decisions. The EPA's *Revised Guidance on Compiling Administrative Records for CERCLA Response Actions* states that the administrative record should "tell the story of a response action selection decision" and should include documents that collectively explain why the EPA chose the response actions at that site and that demonstrate public participation in those cleanup decisions. The ACW Superfund site's repository did not contain documents showing public participation in remedy decisions. The EPA did not include an index in the repository, which would have been beneficial in this instance because the information was not organized and catalogued, and the library database did not list the records it received from the EPA in the searchable inventory. Instead, as shown in the photograph, the documents were in the library's basement archive in various boxes that required the assistance of staff to retrieve and review.

Additionally, the EPA's ACW webpage does not contain a set of documents that could be considered a complete administrative record. First, at the time of our fieldwork, the EPA's ACW webpage stated that there was no published administrative record available for the ACW Superfund site. The webpage did contain an electronic repository of documents under the "Reports and Documents" section. However, collectively these documents also do not compose a complete administrative record because they do not include all the Records of Decision or the assessments, investigations, or feasibility studies on which the EPA based its remedial decisions. The EPA's ACW webpage also did not include an index, and the electronic repository does not include documents demonstrating public involvement in the remedial decisions. The documents on the EPA's ACW webpage were generally newer and did not, in line with

EPA guidance, “tell the story” of the full scope of decisions and remedial actions at the ACW Superfund site. EPA resources also direct the public to conflicting and sometimes inaccurate locations for site information. While the webpage correctly identifies the location of the local repository, the *Community Involvement Plan* in that repository identified the location of the records as the Pensacola Public Library. The archivist at the University of West Florida John C. Pace Library explained that the archive department receives information from other libraries around Pensacola that do not wish to store old documents. The archivist also suggested that we might find more updated records at the Pensacola Public Library. However, when we went to the Pensacola Public Library, the librarians had no information about the ACW Superfund site on record. They directed us to the EPA’s ACW webpage which, as already discussed, does not contain a complete administrative record for review. Furthermore, while regulations do not define “near,” the repository at the John C. Pace Library containing the physical administrative record is approximately 15 miles away from the site. In contrast, the Pensacola Public Library is approximately two miles from the neighborhood surrounding the ACW Superfund site. For the impacted private property owners on or near the site, particularly those without transportation, the distance to the site repository could be a barrier. The EPA has an opportunity to serve those private property owners by ensuring its electronic information repository also contains a complete administrative record.

Conclusions

Institutional controls are important components of the EPA’s response at Superfund sites because they protect the engineered remedies and reduce the potential for any residual contamination harming human health or the environment. Institutional controls can be challenging to implement, monitor, and enforce because each Superfund site exists in a unique regulatory and social context. Furthermore, the EPA often relies on state and local government partners for implementation and enforcement. However, these challenges do not negate the EPA’s responsibility to establish appropriate institutional controls and to monitor them to ensure that they function as intended. Strong oversight and management of these sites’ institutional controls in all phases of remediation will safeguard IJA-funded investments in remedial actions and help to protect public health and the communities impacted by Superfund sites.

Recommendations

We recommend the regional administrator for Region 4:

1. Seek to secure permission from private property owners to plug and abandon groundwater wells encountered during remediation of Operable Unit 3 of the American Creosote Works Inc. (Pensacola Plant) Superfund site to help protect the \$1.3 million in Infrastructure Investment and Jobs Act funding allocated for remediation. In the instances in which a private property owner does not grant permission to plug and abandon a well, provide documentation to the property owner that makes clear that the property owner received an explanation of the property owner’s responsibilities regarding any future potential contamination at the property.

2. Work with the City of Pensacola in Florida to establish a system indicator to identify contaminated areas during the construction permitting process for properties in Operable Unit 3 of the American Creosote Works Inc. (Pensacola Plant) Superfund site. This indicator would not prevent a permit nor would it be publicly viewable, but it would provide contractors with the information necessary to protect their employees and to appropriately dispose of any contaminated soil.
3. Identify and work with amenable private property owners within Operable Unit 3 of the American Creosote Works Inc. (Pensacola Plant) Superfund site and appropriate local governments to establish restrictive covenants on contaminated private parcels to prevent the disturbance and removal of impacted soil. Restrictive covenants not only would protect the public but also could protect the \$5.4 million Infrastructure Investment and Jobs Act-funded remediation by keeping hard surfaces and foundations in place over unremediated soil.
4. Seek to establish formal agreements with state and local government stakeholders to implement and oversee institutional controls for the American Creosote Works Inc. (Pensacola Plant) Superfund site, documenting a shared understanding of the intent of any interim and permanent institutional controls. The documentation should also define the roles and oversight responsibilities of the EPA and other stakeholders for the site.
5. Use a tracking or accountability tool, like an Institutional Control Implementation and Assurance Plan or the “Institutional Controls” module in the Superfund Enterprise Management System, to clarify the purpose and evaluate the performance of institutional controls at the American Creosote Works, Inc. (Pensacola Plant) Superfund site.
6. As required by the Comprehensive Environmental Response, Compensation, and Liability Act implementing regulations and EPA guidance, ensure the physical administrative record for the American Creosote Works Inc. (Pensacola Plant) Superfund site is complete. Include an index in the record at both the physical information repository and in the “Administrative Records” section of the EPA’s site profile webpage.
7. Update the American Creosote Works Inc. (Pensacola Plant) Superfund site’s *Community Involvement Plan* to accurately communicate the location of the local repository for the physical administrative record.
8. Prominently display the American Creosote Works Inc. (Pensacola Plant) Superfund site’s institutional control information on the EPA’s site profile webpage so that the information is thorough and consistent and clearly articulates public risk associated with the site.

We recommend the assistant administrator for Land and Emergency Management:

9. Update the Superfund geographic information system database site file for the American Creosote Works Inc. (Pensacola Plant) Superfund site to accurately reflect the extent of contamination and the Operable Unit 3 boundaries.

Agency Response and OIG Assessment

Appendix B contains the Office of Land and Emergency Management's and Region 4's consolidated response to our draft report. They also provided technical comments, which we reviewed and used to make appropriate changes to the final report. The Office of Land and Emergency Management and Region 4 agreed with Recommendations 1, 2, 5, 7, 8, and 9 and described corrective actions responsive to the recommendations. These recommendations are resolved with corrective actions pending.

Region 4 did not agree with Recommendation 3, which originally recommended that the EPA work with property owners and appropriate local governments to establish restrictive covenants *before remediation began* to prevent the disturbance of soil on impacted properties. The intent of this recommendation was not only to protect the public before remediation begins but also to reduce the risk of recontamination by keeping hard surfaces and foundations in place over unremediated soil. In its response, Region 4 stated that, because typical restrictive covenants take eight to 12 months to implement, establishing them before cleanup would delay remediation and increase the time residents may potentially be exposed to contamination. The region added that required amendments to the Record of Decision would further delay remediation. Instead of restrictive covenants, Region 4 said it provided detailed information in a presentation to community members in a January 2024 public meeting, discussed how to limit exposure until the EPA has addressed the contamination on their properties, mailed a fact sheet to community members that showed impacted and unimpacted properties, and made both the presentation and the fact sheet available on the EPA's ACW webpage. Based on these actions, the region believes individual restrictive covenants are not needed to protect the public before remediation begins. Region 4 also stated that the selected remedy is designed to result in unlimited use and unrestricted exposure and does not require any post remedy restrictions. In its technical comments, the region further explained that, based on the Site Conceptual Model,¹³ contamination from the site was transported off-site by overland flow or dust from vehicular traffic from the ACW Superfund site after most of the houses and hard surfaces were present. Therefore, Region 4 said widespread contamination is not expected to be found under houses or large structures. Recommendation 3's original language sought to address our concerns about exposure before remediation, as well as contamination that may remain in place under hard surfaces and foundations after remediation. We acknowledged the potential delays that establishing restrictive covenants with individual homeowners may create and updated the original recommendation to remove references to

¹³ A **Site Conceptual Model**, or a **Conceptual Site Model**, is a representation of a site that summarizes chemical, geologic, hydrogeologic, historical and other information to help clean-up teams better understand the contamination at a site, identify and implement appropriate and protective remedies, and limit the negative impacts of clean-up activities.

the restrictive covenants being in place before remediation begins. However, the documentation that Region 4 provided us does not match the risk communication efforts described in the formal response, and we could not locate the information that the region said it had shared with the community and the wider public on the EPA's ACW webpage. Region 4 also provided additional documentation to support the statement that the houses and hard surfaces in place at the time of our review were in place when contamination was transported off-site. We updated the original recommendation to have Region 4 focus its efforts on property owners who are willing to establish the restrictive covenants and facilitate that process. We also suggested that Region 4 limit its scope to properties with hard surfaces or large structures that were built or expanded after contamination was transported off-site based on its Site Conceptual Model. This recommendation remains unresolved. We anticipate reaching resolution of this recommendation pending receipt of additional documentation of the region's risk communication efforts, as well as evidence of the region's efforts to identify and work with amenable property owners to ensure potential residual contamination remains in place.

Region 4 did not agree with Recommendation 4, which recommended that the region establish formal agreements with state and local government stakeholders regarding institutional controls. In its response and discussions with our team after receiving the draft report, Region 4 described efforts to work with local stakeholders to implement agreements. Although the region was unable to provide a time frame for finalizing the agreements, the region stated that the Institutional Control Implementation and Assurance Plan, which will be completed in the third quarter of 2024, will address the agreements. This recommendation remains unresolved. We anticipate reaching resolution pending completion of the Institutional Control Implementation and Assurance Plan and additional description of efforts with local stakeholders to implement formal agreements.

Region 4 did not agree with Recommendation 6, which recommended that the region ensure the existence of a complete physical administrative record. In March 2013, the EPA published a final rule updating the CERCLA implementing regulations, namely the *National Contingency Plan*, adding a provision that states, "[t]he lead agency may make the administrative record file available to the public in microform, computer telecommunications, or other electronic means."¹⁴ The region pointed to this rule to assert that the provision was meant "to broaden the technology, to include computer telecommunications or other electronic means, that the lead agency is permitted to use to make the administrative record file available to the public." Therefore, instead of maintaining current and complete physical administrative records at the repositories, Region 4 opted to inform the former repositories of the existence of the EPA's ACW webpage and ensure physical repository locations have public access to the internet. The region stated that it provided a copy of the administrative record to the West Florida Genealogy Branch Library in September 2017. It is important to note that this library is not the repository listed in the 2018 *Community Involvement Plan* nor is it the repository location listed on the public-facing EPA ACW webpage. The region also stated that it provided the library with a letter directing interested stakeholders to EPA's ACW webpage and noted that the libraries provide computers

¹⁴ 40 C.F.R. § 300.805(c). See National Oil and Hazardous Substances Pollution Contingency Plan; Revision to Increase Public Availability of the Administrative Record File, 78 Fed. Reg. 16,612 (March 18, 2013).

and web access, ensuring accessibility to all interested parties. While we acknowledge that the electronic availability of the administrative record improves public access to the information, we are still concerned that the approach taken by the region is inconsistent with the intent of the rule updating the regulations and allowing the Agency to use electronic means to provide the public access to administrative records. While the updated *National Contingency Plan* allows the EPA to provide the administrative record electronically, the regulatory text is far from clear in conveying whether doing so supplants the requirement to provide the administrative record physically. For example, 40 C.F.R. § 300.805(a) provides that the lead Agency “shall establish” a copy of the administrative record at a permissible physical location. That provision contains five exceptions, none of which involve providing the administrative record electronically. By contrast, 40 C.F.R. § 300.805(c) provides that lead agency “may” make the administrative record file available by electronic means, and it makes no mention as to whether doing so would impact the requirement at 40 C.F.R. § 300.805(a). Even accepting that providing the administrative record electronically supplants the need to provide a physical copy, the final rule states that the format for providing the administrative record should be based on a process assessing the preferences of the community and the lead agency’s assessment of the site-specific situation.¹⁵ The region has not provided evidence that it conducted such an assessment nor asserted that it conducted one. Further, it is not clear that it is appropriate to make such a broad assessment for an entire region since the final rule describes this process as a site-specific determination. Given that this site-specific language is used in the final rule to address a comment on how the EPA will determine community preferences, the region’s approach to provide an electronic-only administrative record is inconsistent with the assurances provided during the rulemaking process. The recommendation remains unresolved.

Using this same rationale, the region reiterated that, while it agreed with Recommendation 7 and was updating the *Community Involvement Plan*, it no longer maintains a physical administrative record at site repositories. This recommendation is resolved with corrective actions pending. However, to the extent that the region intends to use this *Community Involvement Plan* update to inform the community that there is no complete and current physical administrative record, we strongly urge the region to be transparent on how it determined this was the community’s preference.

¹⁵ 78 Fed. Reg. 16612, 16613 (Mar. 18, 2013).

Status of Recommendations

Rec. No.	Page No.	Recommendation	Status*	Action Official	Planned Completion Date
1	17	Seek to secure permission from private property owners to plug and abandon groundwater wells encountered during remediation of Operable Unit 3 of the American Creosote Works Inc. (Pensacola Plant) Superfund site to help protect the \$1.3 million in Infrastructure Investment and Jobs Act funding allocated for remediation. In the instances in which a private property owner does not grant permission to plug and abandon a well, provide documentation to the property owner that makes clear that the property owner received an explanation of the property owner's responsibilities regarding any future potential contamination at the property.	R	Regional Administrator for Region 4	6/30/24
2	18	Work with the City of Pensacola in Florida to establish a system indicator to identify contaminated areas during the construction permitting process for properties in Operable Unit 3 of the American Creosote Works Inc. (Pensacola Plant) Superfund site. This indicator would not prevent a permit nor would it be publicly viewable, but it would provide contractors with the information necessary to protect their employees and to appropriately dispose of any contaminated soil.	R	Regional Administrator for Region 4	6/30/24
3	18	Identify and work with amenable private property owners within Operable Unit 3 of the American Creosote Works Inc. (Pensacola Plant) Superfund site and appropriate local governments to establish restrictive covenants on contaminated private parcels to prevent the disturbance and removal of impacted soil. Restrictive covenants not only would protect the public but also could protect the \$5.4 million Infrastructure Investment and Jobs Act-funded remediation by keeping hard surfaces and foundations in place over unremediated soil.	U	Regional Administrator for Region 4	
4	18	Seek to establish formal agreements with state and local government stakeholders to implement and oversee institutional controls for the American Creosote Works Inc. (Pensacola Plant) Superfund site, documenting a shared understanding of the intent of any interim and permanent institutional controls. The documentation should also define the roles and oversight responsibilities of the EPA and other stakeholders for the site.	U	Regional Administrator for Region 4	
5	18	Use a tracking or accountability tool, like an Institutional Control Implementation and Assurance Plan or the "Institutional Controls" module in the Superfund Enterprise Management System, to clarify the purpose and evaluate the performance of institutional controls at the American Creosote Works Inc. (Pensacola Plant) Superfund site.	R	Regional Administrator for Region 4	6/30/24
6	18	As required by the Comprehensive Environmental Response, Compensation, and Liability Act implementing regulations and EPA guidance, ensure the physical administrative record for the American Creosote Works Inc. (Pensacola Plant) Superfund site is complete. Include an index in the record at both the physical information repository and in the "Administrative Records" section of the EPA's site profile webpage.	U	Regional Administrator for Region 4	
7	18	Update the American Creosote Works Inc. (Pensacola Plant) Superfund site's <i>Community Involvement Plan</i> to accurately communicate the location of the local repository for the physical administrative record.	R	Regional Administrator for Region 4	6/30/24
8	18	Prominently display the American Creosote Works Inc. (Pensacola Plant) Superfund site's institutional control information on the EPA's site profile webpage so that the information is thorough and consistent and clearly articulates public risk associated with the site.	R	Regional Administrator for Region 4	6/30/24
9	19	Update the Superfund geographic information system database site file for the American Creosote Works Inc. (Pensacola Plant) Superfund site to accurately reflect the extent of contamination and the Operable Unit 3 boundaries.	R	Assistant Administrator for Land and Emergency Management	6/30/24

* C = Corrective action completed.

R = Recommendation resolved with corrective action pending.

U = Recommendation unresolved with resolution efforts in progress

Superfund Funding Sources

Congress established CERCLA in 1980 in response to highly publicized hazardous waste incidents that occurred in the 1970s. CERCLA instituted a tax on the chemical and oil industries and authorized the EPA to require owners and operators of contaminated sites to clean up the sites. The tax revenues are put in a trust fund, also known as the Superfund, to pay for emergency responses and site cleanup when the EPA cannot identify responsible parties. Tax revenues collected in the first five years after CERCLA was enacted resulted in approximately \$1.6 billion for the Superfund. The tax on the oil and chemical industries expired on September 30, 1985. In 1986, Congress enacted the Superfund Amendments and Reauthorization Act, which reinstated and expanded the scope of taxes on the oil and chemical industries from 1987 through 1991. In 1990, taxes to support the Superfund were extended once again until 1995 by the Omnibus Budget Reconciliation Act of 1990. By the end of 1995, the funding for the Superfund was being provided by general revenues from Congress.

Historically, Superfund funding has been insufficient to support the large amount of remediation that needs to occur at the hundreds of Superfund sites nationwide. A 2010 GAO report, [GAO-10-380](#), *Superfund: EPA's Estimated Costs to Remediate Existing Sites Exceed Current Funding Levels and More Sites Are Expected to Be Added to the National Priorities List*, documented that, by 2009, the Superfund balance had decreased to \$137 million. The report also described how the annual cost estimates for Superfund remediation for 2011 and 2012 exceeded those of 2009 by \$253 million and \$414 million, respectively. Furthermore, the report stated that the costs were likely underestimated. The report also noted that, of the 75 nonfederal National Priorities List sites (at that time) where human exposure was still unacceptable, 65 percent of them had either all or more than half of the remediation still incomplete because of insufficient funding.

Recent special appropriations have injected funding into the Superfund. In 2009, Congress enacted the American Recovery and Reinvestment Act, which provided \$600 million for the Superfund. In 2021, the Infrastructure Investment and Jobs Act, which provided \$3.5 billion to remediate and close out Superfund sites on the National Priorities List, was enacted. Additionally, the Inflation Reduction Act, enacted in 2022, permanently reinstated the taxes on the chemical and oil industries.

Agency Response to the Draft Report



REGION 4 ADMINISTRATOR

ATLANTA, GA 30303

February 15, 2024

MEMORANDUM

SUBJECT: Response to Office of Inspector General Draft Report No. OSRE-FY23-0054 *The EPA Needs to Improve Institutional Controls at the American Creosote Works Superfund Site in Pensacola, Florida, to Protect Public Health and IJJA-Funded Remediation*, Dated January 16, 2024

FROM: Jeaneanne M. Gettle
Acting Regional Administrator

JEANEANNE GETTLE Digitally signed by
JEANEANNE GETTLE
Date: 2024.02.15
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TO: Sean W. O'Donnell, Inspector General
Office of Inspector General

Thank you for the opportunity to respond to the recommendations and issues raised in the subject Office of Inspector General (OIG) draft audit report. This response has been coordinated with the Office of Land and Emergency Management (OLEM) and includes responses to OIG recommendations from both the Region and OLEM. A summary of our overall response, along with a response on each of the report recommendations directed to Region 4 and the Office of Land and Emergency Management (OLEM) Principal Deputy Assistant Administrator is provided below. For those report recommendations with which the Region4/OLEM agrees (Recommendations 1, 2, 5, 7, 8 and 9), we have provided high-level intended corrective actions and estimated completion dates. For those report recommendations with which the Region4/OLEM does not agree (Recommendations 3, 4 and 6), we have provided explanations for our position and have proposed alternatives to the OIG's recommendations in those instances. For your consideration, we have also included a Draft Report Technical Comments Attachment to supplement this response that includes input from the Region and OLEM.

OVERALL POSITION

Region4/OLEM agrees with the substance of most of the recommendations of the OIG report. The report provides a detailed view of institutional controls (ICs) at the site and provides suggested recommendations for improvements. Region 4 is aware of the need for some of these improvements and is working to implement them. Region 4 will take all necessary steps to ensure appropriate ICs are in place where needed. As noted in the OIG draft report, the Region works closely with the city government and the Florida Department of Environmental Protection (FDEP) to share information about the site with our stakeholders, including the impacted community, to maintain awareness of the risks posed by the contaminants at the site. In addition, the Region is currently developing an Institutional Control Implementation and Assurance Plan (ICIAP) for this site to track all contaminated parcels and the ICs or other controls placed on those contaminated parcels. The ICIAP document will be shared with all the involved parties. This document will be kept up to date so that it is a living document that is accessible to all stakeholders.

The Region/OLEM appreciates the input of the OIG on how to best protect and leverage the Infrastructure Investment and Jobs Act (IIJA) funds used to implement the remedy at this site, once the remedy has been implemented. Please see the Region’s and OLEM’s responses to the specific OIG recommendations below with additional information in the Technical Comments Attachment.

RESPONSE TO REPORT RECOMMENDATIONS

No.	Recommendation	Agreements: High-Level Intended Corrective Action(s)	Estimated Completion Quarter & FY
#1	Seek to secure permission from private property owners to plug and abandon groundwater wells encountered during remediation of Operable Unit 3 of the American Creosote Works Inc. Superfund site to help protect the \$1.3 million in Infrastructure Investment and Jobs Act funding allocated for remediation. In the instances in which a private property owner does not grant permission to plug and abandon a well, provide documentation to the property owner that makes clear that the property owner received an explanation of the property owner’s responsibilities regarding any future potential contamination at the property.	Region 4 agrees with this recommendation. The Region will begin the Remedial Action of Operable Unit 3 of the American Creosote Works Inc. Superfund site in the Summer of 2024. The first action will include abandoning the monitoring wells onsite and removal of a debris pile in the middle of the site. As part of these initial activities, the Region will contact property owners with irrigation or other private wells in and near the contaminated areas and offer to abandon their wells. Formal documentation will be made for any properties who refuse well abandonment	3 rd Quarter 2024

#2	<p>Work with the City of Pensacola in Florida to establish a system indicator to identify contaminated areas during the construction permitting process for properties in Operable Unit 3 of the American Creosote Works Inc. Superfund site. This indicator would not prevent a permit, nor would it be publicly viewable, but it would provide contractors with the information necessary to protect their employees and to appropriately dispose of any contaminated soil.</p>	<p>Region 4 agrees with this recommendation. The Region is currently drafting an <i>Institutional Control Implementation and Assurance Plan (ICIAP)</i> for this site, which should be finalized and implemented in the first half of 2024. The EPA will work with its local and state partners, City of Pensacola and FDEP to keep this document up to date and active. The ICIAP will establish a system to identify contaminated areas as part of the city’s permitting process that will provide contractors with the information necessary to protect their employees and the public.</p>	<p>3rd Quarter 2024</p>
#5	<p>Use a tracking or accountability tool, like an <i>Institutional Control Implementation and Assurance Plan</i> or the “Institutional Controls” module in the Superfund Enterprise Management System, to clarify the purpose and evaluate the performance of institutional controls at the American Creosote Works Inc. Superfund site.</p>	<p>Region 4 agrees with this recommendation. An Institutional Control Implementation and Assurance Plan (ICIAP) is currently being drafted by Region 4 for this site. Additionally, any institutional controls that are put in place for the site will be added to and tracked in the Institutional Controls module of SEMS.</p>	<p>Site-Specific ICIAP will be completed in 3rd Quarter 2024</p>
#7	<p>Update the American Creosote Works Inc. Superfund Site’s <i>Community Involvement Plan</i> to accurately communicate the location of the local repository for the physical administrative record.</p>	<p>Region 4 agrees with this recommendation. The Community Involvement Plan (CIP) was last updated in 2017 and is currently being updated. The revised CIP will be uploaded to the ACW Pensacola’s website when complete. It should be noted that Region 4 no longer keeps a hard copy of documents at Site Repositories opting instead to inform the former repositories of the existence of the Site website and to ensure repositories have public access to the internet. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) was revised in 2013 to add language to broaden the technology, to include computer telecommunications or other electronic means, that the lead Agency is permitted to use to make the administrative record file available to the public, including</p>	<p>3rd Quarter 2024</p>

		<p>the use of electronic Administrative Records (see NCP- 40 CFR 300.805(c)). Additional information about this revision can be found in the federal register (FR) notice at: https://www.govinfo.gov/content/pkg/FR-2013-03-18/pdf/2013-06189.pdf.</p> <p>The <i>Revised Guidance on Compiling Administrative Records for CERCLA Response Actions (2010)</i> includes a note in the beginning acknowledging the change to the NCP and allowance of electronic means of making the AR available to the public at: (https://www.epa.gov/sites/default/files/2013-11/documents/admin-record-mem-rev.pdf).</p>	
#8	<p>Prominently display the American Creosote Works Inc. Superfund site’s institutional control information on the EPA’s site profile webpage so that the information is thorough and consistent and clearly articulates public risk associated with the site.</p>	<p>Region 4 agrees with this recommendation. Once the ICIAP is finalized, a copy will be posted on the ACW website.</p>	<p>3rd Quarter 2024</p>
#9	<p>Update the Superfund geographic information system database site file for the American Creosote Works Inc. Superfund site to accurately reflect the extent of contamination and the Operable Unit 3 boundaries.</p>	<p>OLEM agrees with this recommendation. Region 4 will provide updated polygon information that OLEM can publish with the Cleanups In My Community (CIMC) application.</p>	<p>3rd Quarter 2024</p>

No.	Recommendation	Disagreements: Agency Explanation/Response	Proposed Alternative
#3	<p>Work with property owners within Operable Unit 3 of the American Creosote Works Inc. Superfund site and appropriate local governments to establish restrictive covenants on contaminated private parcels to prevent the disturbance and removal of impacted soil before remedial actions take place. Restrictive covenants not only would protect the public before remediation is complete but also could protect the \$5.4 million Infrastructure Investment and Jobs Act-funded remediation by keeping hard surfaces and foundations in place over unremediated soil.</p>	<p>Region 4 does not agree with this recommendation. The residential soil removal activities will likely begin in the fall of 2024. Region 4 held a public meeting on January 18, 2024, to inform residents of what to expect with respect to the forthcoming remedial activities in the community and to discuss allowable uses of their properties both before and after excavation. A typical restrictive covenant takes 8-12 months to implement. A delay in beginning remediation increases the time residents may be potentially exposed. Imposing institutional controls on these private residential properties might also require amending the Record of Decision to be consistent with the remedy selection process outlined in CERCLA and the NCP, which would further delay the implementation of the remedy, allowing additional time for potential exposures to occur. The EPA guidance Institutional Controls: A Guide to Planning, Implementing, Maintaining, and Enforcing Institutional Controls at Contaminated Sites (EPA 2012, https://www.epa.gov/sites/default/files/documents/final_pime_guidance_december_2012.pdf) states "ICs should be carefully evaluated, selected, and narrowly tailored to meet the cleanup objectives for the site in a manner that does not unnecessarily restrict the reasonably anticipated future land use or resources."¹ The Selected remedy is designed to result in unlimited use and unrestricted exposure (UU/UE) and not require post remedy restriction. In the January 2024 public meeting, the Region provided detailed information to the community including a presentation discussing how to limit their exposure until EPA has addressed the contamination on their properties. Also, a fact sheet providing the location of</p>	<p>The remedy for this site will likely start in Fall 2024 and will include excavation of the residential yards. After this portion of the RA is finished, restrictive covenants should not be required.</p>

		<p>impacted and unimpacted properties was mailed to community members. Both the fact sheet and the presentation slides are available to the public via the ACW Pensacola website. Given the above, the Region does not believe that individual restrictive covenants are needed, and pursuing such covenants could substantially delay remedial actions at the site. Therefore, Region 4 is confident that its current approach is appropriate according to EPA policy and guidance and consistent with sound engineering and scientific practices.</p> <p>Region 4 believes that, once the remedy is implemented, the controls put in place following the remedial action will protect the substantial investment of IJA funds made in the cleanup.</p>	
#4	<p>Seek to establish formal agreements with state and local government stakeholders to implement and oversee institutional controls for the American Creosote Works Inc. Superfund site, documenting a shared understanding of the intent of any interim and permanent institutional controls. The documentation should also define the roles and oversight responsibilities of the EPA and other stakeholders for the site.</p>	<p>Region 4 works closely with the City of Pensacola to inform stakeholders about remedial activities at the site and the status of contamination in the surrounding soil and groundwater. The Region has also informed the city of the locations of contaminated soil in residential yards and the groundwater plume. The Region has offered assistance to the city in setting up a formal system to reject permits for new buildings, swimming pools and tree removals in designated areas. A formal agreement has not yet been accepted or implemented. The Region believes that, once implemented, the ICIAP will address many of the recommended items.</p>	<p>EPA has tasked its contractor to draft an <i>Institutional Control Implementation and Assurance Plan</i>. The Remedial Project Manager reviewed a preliminary ICIAP in December 2023. This document should be finished and implemented by the 3rd Quarter of 2024. EPA will work with its partners to keep this document up to date and active.</p>

#6	As required by the Comprehensive Environmental Response, Compensation, and Liability Act implementing regulations and EPA guidance, ensure the physical administrative record for the American Creosote Works Inc. Superfund site is complete. Include an index in the record at both the physical information repository and in the "Administrative Records" section of the EPA's site profile webpage.	Region 4 believes that this recommendation does not reflect current Agency guidance and general practice regarding Administrative Record availability. The Region no longer maintains or updates the collection of physical documents at the site repository. (See response to Recommendation 7 above). The Region provided a copy of the Administrative Record (AR), including the Record of Decision (ROD) to the West Florida Genealogy Branch Library following the signing of the document in September 2017. A letter directing interested stakeholders to the website was provided to the library. The libraries also provide computers and web access, which ensures accessibility to all interested parties.	The entire AR, including an index, can now be found online on the ACW Pensacola website.
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¹ The guidance further notes that "establishing ICs with non-source property owners (or property owners who did not cause or contribute to the contamination on their property) can be difficult and may trigger the need for more complex negotiations with landowners to implement proprietary controls. In some cases, it may be appropriate to obtain agreement with affected landowners on ICs other than proprietary controls, such as informational devices or governmental controls, on an interim or final basis."

CONTACT INFORMATION

If you or your staff have any questions regarding this response, please contact the Region 4 Audit Follow-Up Coordinator, Alicia Sterk, at Sterk.Alicia@epa.gov or (801) 678-6168, or the Office of Land and Emergency Management Audit Follow-up Coordinator, Kecia Thornton at Thornton.Kecia@epa.gov or (202) 566-1913.

Attachment

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