Evaluation of Institutional Control Documentation in the Superfund Enterprise Management System on IIJA-Funded Sites

March 19, 2025 | Report No. 25-E-0020

OFFICE OF INSPECTOR GENERAL
U.S. ENVIRONMENTAL PROTECTION AGENCY

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Abbreviations

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EPA	U.S. Environmental Protection Agency
GAO	U.S. Government Accountability Office
IIJA	Infrastructure Investment and Jobs Act
OIG	Office of Inspector General
OLEM	Office of Land and Emergency Management
OSRTI	Office of Superfund Remediation and Technology Innovation
SEMS	Superfund Enterprise Management System
SPIM	Superfund Program Implementation Manual

Key Definitions

Five-Year Reviews	Evaluations of the implementation and performance of a remedy and the protectiveness of human health and the environment. These reviews take place every five years after the beginning of a CERCLA response action and while hazardous substances, pollutants, or contaminants remain at a site at levels above what is allowed for unlimited use and unrestricted exposure.
Institutional Controls	Legal and administrative controls that help minimize the potential for human exposure to contamination and protect the integrity of the response action by limiting land or resource use and guiding human behavior.
Internal Controls	Processes used by management to help an entity achieve its objectives.
Record of Decision	A publicly available document explaining the selection of a remedy to clean up a Superfund site.
Site Profile Page	An EPA public-facing webpage dedicated to a Superfund site.

Cover Image

Online form captured from SEMS overlaying photos of various Superfund sites. (EPA OIG and EPA images)

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At a Glance

Evaluation of Institutional Control Documentation in the Superfund Enterprise Management System on IIJA-Funded Sites

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 upgrade to the Superfund Enterprise Management System is likely to facilitate improved documentation of institutional controls in the "Institutional Controls" module.

The EPA uses the Superfund Enterprise Management System to track and manage documents and information about Superfund sites. This includes data that describe the sites' institutional controls, which are administrative or legal controls that aim to minimize the potential for human exposure to contamination and protect the integrity of a response action by limiting land or resource use and guiding human behavior. Institutional controls are a key part of many long-term cleanup actions taken to prevent or minimize the release or spread of hazardous substances at a Superfund site.

To support these EPA mission-related efforts:

- *Cleaning up and revitalizing land.*
- *Operating efficiently and effectively.*

Address inquiries to our public affairs office at (202) 566-2391 or OIG.PublicAffairs@epa.gov.

List of OIG reports.

What We Found

The upgrade to the Superfund Enterprise Management System is unlikely to improve documentation of institutional controls in the system's "Institutional Controls" module. Currently, EPA staff do not consistently populate institutional control data in the module. Of the 70 Superfund sites we reviewed, 29 sites had implemented institutional controls and 52 sites had planned institutional controls. Fifteen sites had a combination of both, while four sites had neither. However, just over half of the sites with implemented institutional controls and over three quarters of the sites with planned institutional controls did not have any institutional control data in the "Institutional Controls" module. These numbers are notable because the Superfund sites with missing implemented or planned institutional control data have been allocated a total of approximately $483 million and $956 million in Infrastructure Investment and Jobs Act funds, respectively.

The "Institutional Controls" module in the upgraded Superfund Enterprise Management System does not track institutional controls as independent site activities or performance-based milestones. The system also does not allow users to track planned institutional controls in the "Institutional Controls" module. In addition, the Office of Land and Emergency Management has not mandated that the EPA regions use the system's "Institutional Controls" module, nor had it issued guidance regarding the purpose and use of the module at the time of our fieldwork. Consequently, the regions do not use the module consistently, and the data in the system do not completely or accurately reflect actual Superfund site conditions. Without internal controls in place to ensure complete and accurate data in the "Institutional Controls" module, neither the Office of Land and Emergency Management nor the EPA regions can effectively use the Superfund Enterprise Management System for oversight, reporting, or meaningful decision-making regarding institutional controls.

Incomplete and inaccurate data limit the EPA's ability to use the information reported via the Superfund Enterprise Management System to understand trends and maintain awareness about issues at specific Superfund sites.

Recommendations and Planned Agency Corrective Actions

We make five recommendations to the assistant administrator for Land and Emergency Management to improve the EPA's tracking and oversight of institutional controls. We recommend that the assistant administrator distribute guidance to the EPA regions regarding institutional control data, develop a process to ensure that the data remain current and up to date, direct the regions to conduct a timely review of the data, and require the regions to enter data into the Superfund Enterprise Management System during their five-year reviews. The EPA concurred with these four recommendations and presented actions to resolve these recommendations. We also recommend that the assistant administrator update the system so that users can track planned institutional controls at Superfund sites. The EPA disagreed with this fifth recommendation, which remains unresolved.

OFFICE OF INSPECTOR GENERAL
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March 19, 2025

MEMORANDUM

SUBJECT: Evaluation of Institutional Control Documentation in the Superfund Enterprise Management System on IIJA-Funded Sites
Report No. 25-E-0020

FROM: Nicole N. Murley, Acting Inspector General

TO: Barry Breen, Principal Deputy Assistant Administrator performing delegated duties as the 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-FY24-0027. 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.

In accordance with EPA Manual 2750, your office provided acceptable planned corrective actions and estimated milestone dates for Recommendations 1, 2, 3, and 4. 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

Recommendation 5 is 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 recommendation. 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 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 upgrade to the Superfund Enterprise Management System, or SEMS, is likely to facilitate improved documentation of institutional controls in the "Institutional Controls" module.

Background

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] CERCLA, through its implementing regulations, requires that the EPA maintain the National Priorities List—a list of sites that the EPA considers priorities for cleanup based on the relative threat that site contamination poses to human health and the environment. CERCLA also created a trust fund, commonly referred to as the Superfund, to enable the EPA to pay for response and cleanup costs at contaminated sites in certain circumstances.

Institutional Controls

Institutional controls are administrative or legal controls that aim to minimize the potential for human exposure to contamination and protect the integrity of the response action by limiting land or resource use and guiding human behavior. They are a key part of many Superfund site remedies. ***Remedies*** refer to long-term cleanup actions taken to prevent or minimize the release or spread of hazardous substances.

The EPA implements institutional controls at a site, as appropriate, after discovery of contamination and during the cleanup process. Additionally, the EPA may implement such controls when residual site contamination remains at a level that does not allow for unlimited use of or unrestricted exposure to the land or its resources. When appropriate, the EPA relies on the responsible parties for implementation of institutional controls or on its state and local government partners for implementation and enforcement of institutional controls. Institutional controls are frequently used as an additional layer of protection in conjunction with engineered controls, which are physical structures such as containment systems and fences. When institutional controls are required as part of a remedy, the EPA documents this requirement in the site's ***Record of Decision,*** which is the official plan for the site cleanup. According to the EPA's *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents*, planned institutional controls should be described as explicitly as possible in the Record of Decision. Specifically, the Record of Decision should include

[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.

descriptions of performance measures, means of implementing the institutional control, and the implementing party. Appendix A contains more information about institutional controls.

Types of institutional controls

Proprietary controls: Controls that prohibit or restrict use of or activities on private property. They are made with the agreement of the property owner and an enforcement authority. Examples include restrictive covenants and easements.

Governmental controls: Restrictions that a governmental entity imposes on resource or land use. Examples include zoning, building codes, and groundwater-use regulations or restrictions.

Informational devices: Information and notifications provided to local communities, site users, or other interested persons that indicate that residual contamination remains on site. Examples include state registries of contaminated sites, deed notices, tracking systems, fish- and shellfish-consumption advisories, and signage.

Enforcement and permit tools controls: Legal tools that limit site activities or require performance of specific activities. Examples include federal facility agreements and consent decrees.

When contaminants remain at a site and prevent unlimited use and unrestricted exposure, CERCLA requires the EPA to review the selected remedy every five years. These reviews, called ***five-year reviews***, continue until the site's remedy achieves unlimited use and unrestricted exposure. If institutional controls are a component of the remedy, the EPA should evaluate the controls' effectiveness during the five-year reviews and include the results in the site's protectiveness determination. The EPA's guidance for institutional control evaluation includes document reviews, site personnel interviews, and site inspections. EPA guidance recommends obtaining date-stamped institutional control documents and using SEMS to track these documents as well as the institutional control instruments, which can include formal documents that outline the responsibilities and restrictions on all involved parties. The five-year review process may identify institutional control issues that necessitate recommendations and follow-up actions. The EPA guidance also states that Five-Year Review reports should include recommendations and follow-up actions if necessary to ensure the continued protectiveness of the remedy.

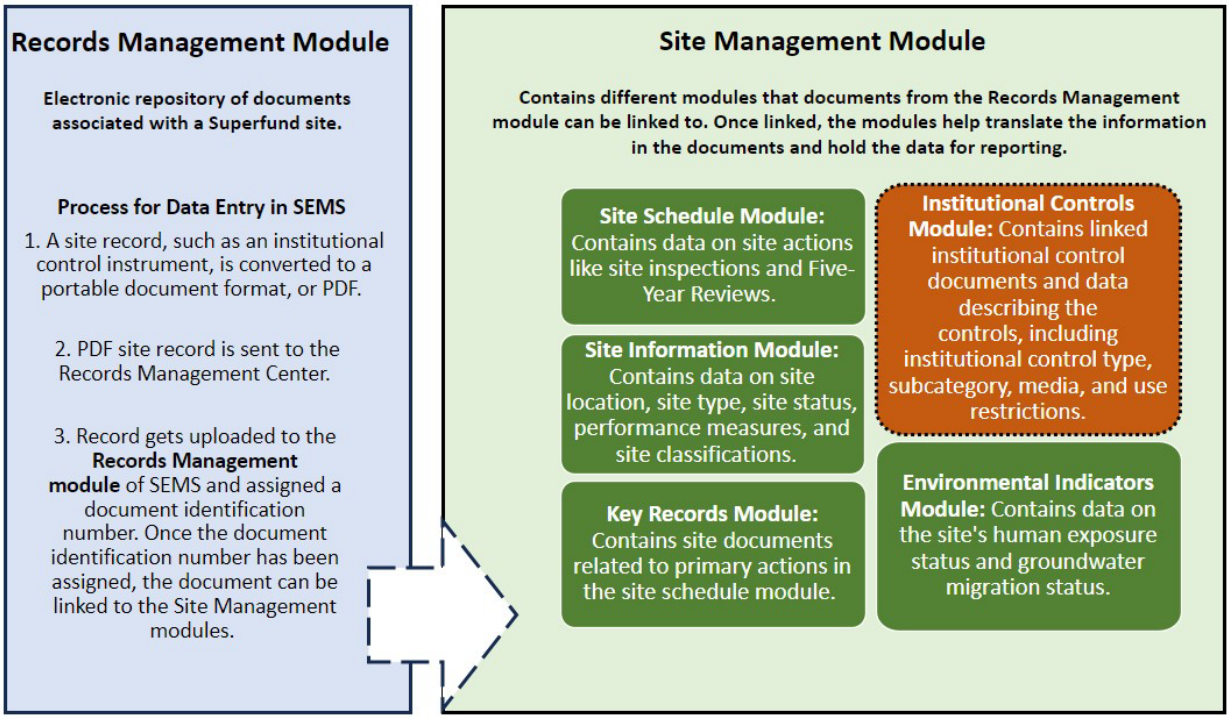
Superfund Enterprise Management System

The EPA uses SEMS to track and manage documents and information about Superfund sites. In fiscal year 2014, the EPA consolidated five standalone Superfund databases into SEMS: the Comprehensive Environmental Response, Compensation, and Liability Information System; the Superfund Document Management System; the Institutional Controls Tracking System; eFacts; and ReportLink. As such, SEMS is the EPA's official Superfund site information management system. It serves as the official records repository and is the primary data source for information on Superfund Program accomplishments, tracking, and monitoring.

As shown in Figure 1, SEMS contains two main modules. The first is the "Records Management" module, which contains records related to Superfund sites. Each Superfund site could have hundreds of associated documents stored in the SEMS "Records Management" module. The second is the "Site

Management" module, which contains informational modules with data about the Superfund sites. Documents from the "Records Management" module can be linked or "associated" to the "Site Management" module. The "Site Management" module is the basis of reporting for site milestones and other site information, including institutional controls. Select data in SEMS are also made available to the public through the EPA's Site Profile Pages, which are webpages that contain background and cleanup activity information for a given site, including information about institutional controls.[2] In addition, limited SEMS data are published in the EPA's Cleanups in My Community geographic information system.[3] Specifically, this system publishes site names, EPA ID numbers, and geographic coordinates. The Cleanups in My Community system also links to the Site Profile Pages. This allows the public to see the locations of and other information about Superfund and other hazardous waste sites.

Figure 1: The two main modules in SEMS



Note: The "Institutional Controls" module, shown in the orange box with a dotted line, is the focus of this evaluation.
Source: EPA OIG analysis of EPA documents and interviews. (EPA OIG image)

If institutional controls are implemented at a site, the SEMS "Records Management" module should contain the relevant documents—for example, copies of restrictive covenants, groundwater-use restriction laws, and other documents that implement institutional controls. These documents should describe stakeholder responsibilities and the intent of the controls or notify stakeholders of

[2] Site Profile Pages pull site data from various sources, including SEMS. While institutional control documents and data can be published to the Site Profile Pages from SEMS, this is not an automatic process. Publication depends on regional processes and the controls placed on the documents.
[3] At the time of our fieldwork, the EPA did not routinely publish institutional control instruments or data to the Cleanups in My Community system.

contamination. The SEMS "Site Management" module, which contains the "Institutional Controls" module, should have data describing the site's implemented institutional controls. To associate an institutional control document with the site's "Institutional Controls" module, a user must first upload the document into the "Records Management" module. From the "Institutional Controls" module, a user can then enter additional information about the institutional control—for example, the institutional control type, such as proprietary controls and informational devices; the contaminated media, such as groundwater and soil; and any resource-use restrictions. The "Institutional Controls" module functions as a summary of a site's institutional controls to facilitate management, oversight, and reporting.

In 2018, the Office of Superfund Remediation and Technology Innovation, or OSRTI, an office within the EPA Office of Land and Emergency Management, or OLEM, entered a five-and-a-half-year contract for SEMS, with $26.5 million expended to develop a system upgrade called SEMS 2.0. The purpose of the upgrade was to modernize SEMS with a new user interface and data management features to better support the Superfund Program. OSRTI released the first phase of SEMS 2.0 on November 30, 2023. In this phase, the office transferred the "Site Management" module, including the "Institutional Controls" module, from the original version of SEMS to SEMS 2.0. For simplicity, we refer to the original version of SEMS as "classic SEMS."[4] The EPA plans to move the remaining modules from classic SEMS to SEMS 2.0 by 2026, when it will discontinue use of classic SEMS.

Data Standards for Government Information Systems

The federal government maintains standards for internal controls, particularly those related to information systems. The *Standards for Internal Control in the Federal Government*, also known as the *Green Book*, states that management should both identify and define data requirements to ensure that the information system is complete, accurate, and valid. According to the *Green Book*, management has a duty to use the information in the system for monitoring and addressing risks.

The *Federal Information System Controls Audit Manual* further describes information systems controls. The manual recommends that any program or process data be complete, accurate, timely, valid, and available for reporting and other management related activities. As the official Superfund Program information system, SEMS is subject to the standards described in the *Green Book* and the *Federal Information System Controls Audit Manual*.

Like the guidance described above, the EPA's fiscal year 2022 *Superfund Program Implementation Manual*, or SPIM, states that "[d]ata needs to be consistent, accurate and timely." It also states that "[i]t is essential that planning and [site] accomplishment data in SEMS remain current and up to date throughout the year and that [site] accomplishments are reported as they occur." The SPIM further explains that the EPA uses the data in SEMS for annual reporting, quick turnaround responses to

[4] In this report, we use "SEMS" when referring to the system itself, not when referring to any specific version of the system. We use "classic SEMS" when referring to the version of the system that existed before the upgrade to SEMS 2.0. We use "SEMS 2.0" when discussing the version that the EPA is releasing during this upgrade.

requests for information, dashboards for senior management decision-making, and Superfund Site Profile Pages.

Prior Evaluation of the EPA's Institutional Control Tracking Deficiencies

Tracking institutional control information has been a long-standing issue for the EPA. In U.S. Government Accountability Office, or GAO, Report No. GAO-05-163, *Hazardous Waste Sites: Improved Effectiveness of Controls at Sites Could Better Protect the Public*, issued in 2005, the GAO analyzed the EPA's difficulties with tracking institutional control information. According to the report, the EPA agreed that "an institutional control tracking system should include information about the selection and implementation of the controls as well as their monitoring, reporting, enforcement, modification, and termination." The EPA also acknowledged that, at the time of the report, there was an "immediate" need to distribute institutional control information but that the EPA had not yet determined what institutional control information would be available to the public.

At the time of the GAO report issuance, the EPA had just started using the Institutional Controls Tracking System, its first institutional control tracking database. The Institutional Controls Tracking System was developed to improve institutional control oversight and the exchange of institutional control information with individuals interested in the status of a Superfund site. However, the GAO found that the initial version of the system did not allow for monitoring or enforcement data. The system only included institutional control information primarily derived from decision documents that may not have reflected the actual site conditions. The GAO was concerned that, without data capabilities related to monitoring and enforcing a site's institutional controls, the Institutional Controls Tracking System was unlikely to improve the long-term effectiveness of institutional controls.

The GAO recommended that the EPA ensure that Institutional Controls Tracking System information on institutional controls accurately reflect actual site conditions. The GAO closed the recommendation in 2009 based on the EPA's efforts to review the information for accuracy and based on the GAO's understanding that the EPA would continue to review the information for accuracy. As previously described, the Institutional Controls Tracking System was one of the five standalone Superfund Program databases that the EPA incorporated into SEMS. Specifically, the data from the Institutional Controls Tracking System served as the basis for the data in the SEMS "Institutional Controls" module. The figure in Appendix B outlines the evolution of EPA guidance on tracking institutional control data.

Responsible Offices

OLEM is responsible for policy development and program management for Superfund activities across the ten EPA regions. OLEM's OSRTI updates the SPIM, issues related guidance to help staff implement and manage the Superfund Program, and manages SEMS. It published nine versions of the SPIM from 2004 through 2022.[5]

[5] The Office of Solid Waste and Emergency Response changed its name to the Office of Land and Emergency Management, effective December 15, 2015, so SPIM versions prior to that date may use the old name.

The EPA regions manage individual Superfund site cleanups and are primarily responsible for ensuring that site records and information in SEMS are accurate and complete. The regions develop individual Data Entry Control Plans to provide region-specific guidance on entering data in SEMS. Each region has at least one information management coordinator who serves as the regional lead for all SEMS data systems management activities, including ensuring that data are entered in a timely manner.

In fiscal year 2024, OLEM's budget from annual appropriations was approximately $877 million, and OSRTI's budget was approximately $35 million.[6]

Scope and Methodology

We conducted this evaluation from December 2023 to October 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 queried records for 70 Superfund sites that, according to the EPA, would receive approximately $1.4 billion in Infrastructure Investment and Jobs Act, or IIJA, funds for new construction in fiscal years 2022 and 2023.[7] This initial query indicated that most of the 70 sites did not have any information in the SEMS "Institutional Controls" module. At the time of the query, two of these sites were the subjects of ongoing EPA OIG oversight efforts and had institutional controls that had been in place for at least a decade.[8] We used the information in classic SEMS and SEMS 2.0 to better understand the nature and extent of the data gaps, the causes of the gaps, and any steps the EPA has taken to ensure that the data in the SEMS 2.0 "Institutional Controls" module are complete and accurate.

We reviewed Agency guidance related to institutional controls, data management practices, and records management protocols. We also reviewed site documents for the 70 Superfund sites in our sample and OLEM trainings related to the SEMS 2.0 release and the "Institutional Controls" module. We interviewed two staff members from OSRTI to understand OLEM's direction to the regions on managing data and using SEMS for institutional control data. To understand regional variations in the use of the "Institutional Controls" module in classic SEMS and SEMS 2.0, we also interviewed 17 staff members from the EPA regional offices, including information management coordinators from all ten regions and

[6] These amounts account only for annual appropriations in fiscal year 2024. They do not include Superfund tax funds, Infrastructure Investment and Jobs Act funds, other special accounts, or other available funding sources.
[7] The IIJA provides approximately $3.5 billion to accelerate the cleanups at National Priorities List sites. The allocation of IIJA funds in fiscal year 2022 included funds for new construction projects at 49 sites, and the allocation in fiscal year 2023 included funds for new construction projects at an additional 21 sites. These sites do not represent all IIJA-funded sites; other sites also received IIJA funds to continue construction that started under other funding mechanisms.
[8] See EPA OIG Report No. 24-E-0032, *The EPA Needs to Improve Institutional Controls at the American Creosote Works Superfund Site in Pensacola, Florida, to Protect Public Health and IIJA-Funded Remediation*, and EPA OIG Report No. 24-E-0046, *The EPA Should Improve Oversight of Physical Access and Institutional Controls at the Escambia Wood Superfund Site*.

other staff members involved in institutional control data entry and oversight. Lastly, we interviewed five OSRTI staff members involved in reviewing Five-Year Review reports.

Prior Reports

The following reports describe our recent work related to institutional controls at Superfund sites:

- In EPA OIG Report 24-E-0032, *The EPA Needs to Improve Institutional Controls at the American Creosote Works Superfund Site in Pensacola, Florida, to Protect Public Health and IIJA-Funded Remediation,* published on April 15, 2024, we noted that the institutional controls at the American Creosote Works Superfund site were not sufficient to prevent potential exposure to contamination. Further, we concluded that the EPA was not using tools available for documenting and tracking institutional controls, including the SEMS "Institutional Controls" module. We made nine recommendations to improve the implementation and effectiveness of institutional controls at the site. Four of the nine recommendations remain open, including ensuring that any institutional controls for the site are added to and tracked in the SEMS "Institutional Controls" module.
- In EPA OIG Report 24-E-0046, *The EPA Should Improve Oversight of Physical Access and Institutional Controls at the Escambia Wood Superfund Site,* published on June 12, 2024, we stated that the EPA was not providing sufficient oversight of the maintenance of engineering controls and institutional controls at the Escambia Wood Superfund site. We found that the physical access controls, such as fencing and signage, were in poor condition or missing. We also found that the restrictive covenants that prohibit residential or recreational use of the land were not enforced, resulting in a large encampment of homeless persons at the site. We made four recommendations, including some related to the site's institutional controls. One of the four recommendations remains open. Although not discussed in the report, during our fieldwork we found that the "Institutional Controls" module for this site did not include any information.

In addition to the previously discussed GAO report, we reviewed the following EPA OIG reports related to Superfund site management and institutional controls:

- EPA OIG Report No. 21-P-0114, *EPA Does Not Consistently Monitor Hazardous Waste Units Closed with Waste in Place or Track and Report on Facilities That Fall Under the Two Responsible Programs,* published on March 29, 2021, identified duplicates and discrepancies with milestone accomplishments between facilities that were in both the Resource Conservation and Recovery Act Corrective Action Program and the Superfund Program. These data inaccuracies may lead to double counting program accomplishments and can mislead the public on the site cleanup status. We made six recommendations to improve accuracy of the facility data. All recommendations have been closed.

- EPA OIG Report No. 09-P-0128, *Lack of Project Plan Resulted in Transition and Contractor Performance Problems for the Institutional Controls Tracking System*, published on March 25, 2009, found that the EPA did not comply with system development practices in the development of the Institutional Controls Tracking System. The lack of compliance caused the EPA to release an initial version of the system with quality issues. We made three recommendations to improve oversight of the project. All recommendations have been closed.

Results

Because of system limitations and insufficient guidance from OLEM, the information in the classic SEMS "Institutional Controls" module is not complete and available for reporting, monitoring, and other oversight activities. The upgrade to SEMS 2.0 is unlikely to improve this condition. Specifically, classic SEMS and SEMS 2.0 do not track institutional controls as independent elements of a site remedy, and they do not allow users to track planned institutional controls. In addition to these system design limitations, at the time of our fieldwork, OLEM had not mandated that the regions use the "Institutional Controls" module, nor had it issued guidance regarding the purpose and use of the module. Consequently, the regions do not use the "Institutional Controls" module consistently, so the data do not completely or accurately reflect actual site conditions.

Incomplete and inaccurate information limits the EPA's ability to fully use SEMS reporting functions to understand national or regional trends; improve public awareness about institutional controls; and maintain awareness, both regionally and at headquarters, regarding issues at a specific Superfund site. Adequate implementation and timely oversight of institutional controls reduces the risk of harm to the public and the environment and protects the remedies in place. Given that the IIJA sets aside $3.5 billion for remedial action at Superfund sites, the vast majority of which will be spent on physical remedies, adequately protecting these remedies through strong and well-overseen institutional controls is critical to ensure that the funds benefit the Superfund Program as intended. Furthermore, improvements to institutional control documentation could help improve oversight at all Superfund sites, not just IIJA-funded sites.

The EPA Does Not Consistently Document Institutional Control Information in the "Institutional Controls" Module

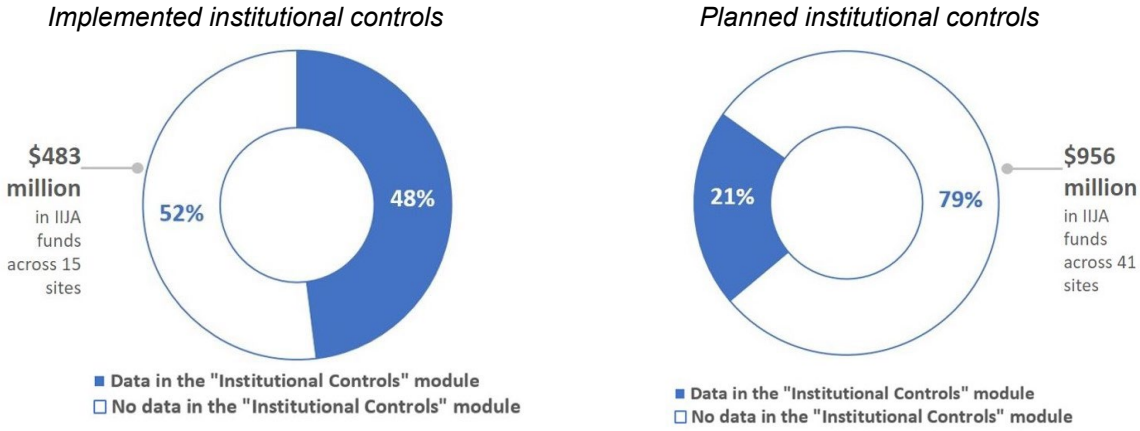
EPA staff do not consistently populate institutional control data in the SEMS "Institutional Controls" module, even though institutional controls are an important part of remedial actions. We reviewed site-specific decision documents, Five-Year Review reports, and related records in classic SEMS, as well as the associated SEMS institutional control module data for the 70 sites we sampled. Almost all the 70 sites had planned or implemented institutional controls. Specifically, 52 sites had planned institutional controls and 29 sites had implemented institutional controls outlined in the documents we reviewed.[9]

[9] Fifteen of the 70 sites had a combination of planned and implemented institutional controls. Four sites had neither planned nor implemented institutional controls.

As shown in Figure 2, 15 of the 29 sites that had implemented institutional controls, or over half of those sites, did not have any institutional control data in the "Institutional Controls" module. These sites have been allocated a total of approximately $483 million in IIJA funds. Of the 14 sites that had related information in the "Institutional Controls" module, ten sites included the institutional control instruments that would describe the restricted and permitted uses of the land and resources. The four remaining sites did not include these instruments, but the sites did link to the Record of Decision, a Five-Year Review report, or another document.

While the implemented institutional controls were likely not implemented using IIJA funds,[10] the policies and practices that led to these gaps, if not corrected, will affect oversight of the controls that protect IIJA-funded site remedies. As shown in Figure 2, 41, or 79 percent, of the 52 sites that had planned institutional controls did not have any institutional control data in the "Institutional Controls" module. These sites have been allocated a total of approximately $956 million in IIJA funds. Because the planned institutional controls have not been implemented, their successful and timely implementation would directly impact IIJA-funded remedies.

Figure 2: Data availability of implemented and planned institutional controls in the SEMS "Institutional Controls" module for Superfund sites receiving IIJA funds for new construction



Source: OIG analysis of EPA data. (EPA OIG images)

While our evaluation focused on the data in classic SEMS, we reviewed the data in SEMS 2.0 in February 2024 and confirmed that the data matched that in classic SEMS for all but one site. According to the EPA staff member overseeing the data transition, the EPA did not address institutional control data gaps during the transition to SEMS 2.0. The migration focused on transferring all the existing data in classic SEMS to SEMS 2.0.

[10] Because of the timing for when sites received IIJA funds, many sites were already implementing institutional controls as part of previous remedial actions or other planned cleanup phases.

The Superfund Enterprise Management System Cannot Reliably Track Institutional Controls

Neither classic SEMS nor SEMS 2.0 track institutional controls as independent elements of a site remedy. Specifically, these systems do not allow users to document institutional control implementation as an independent site activity or a performance-based milestone. Based on our interviews, users can update the "Institutional Controls" module in support of other site accomplishments, such as when a site achieves "Sitewide Ready for Anticipated Use" status.[11] Consequently, some regions do not update institutional control data in the module until a project milestone is achieved, if they update the data at all.

Furthermore, neither version of SEMS can track planned institutional controls, unlike the Institutional Controls Tracking System—SEMS's predecessor. Regional staff involved in institutional control data entry and oversight explained that before they can add institutional control data to the "Institutional Controls" module, they must first upload an institutional control instrument to the "Records Management" module and then link or associate the instrument with the "Institutional Controls" module. In other words, without an institutional control instrument in the "Records Management" module, staff could not enter institutional control data into SEMS. Two staff members described potential workarounds. However, without direction from OLEM, these approaches could lead to further inconsistencies, inhibit comprehensive nationwide reporting, and exacerbate the existing data quality issue.

OLEM guidance on institutional controls states that the "[f]ull life cycle planning of [institutional controls] is recommended to ensure their long-term effectiveness. Planning for [institutional controls] should begin early and be an ongoing process." However, the inability to track planned institutional controls; monitor their implementation progress; and track their maintenance, enforcement, and modifications independently of other site accomplishments means that site teams will focus on institutional controls too late in the remediation process. Tracking planned institutional controls and not tying implementation metrics solely to other site accomplishments could reinforce the importance of institutional controls throughout the site's life cycle, not just toward the end of construction or other remediation activities.

The Office of Land and Emergency Management Guidance Does Not Sufficiently Address Institutional Control Data Entry

Although the regions are primarily responsible for ensuring that site records and information in SEMS are accurate and complete, they rely heavily on guidance from OLEM to implement the program. However, at the time of our fieldwork, OLEM had not issued guidance regarding the purpose and use of the "Institutional Controls" module. Additionally, at the time of our fieldwork, OLEM had not updated

[11] "Sitewide Ready for Anticipated Use" status is achieved when it is currently and accurately documented in SEMS that the entire site has human exposure under control; all protective remedies are in place; all cleanup goals outlined in decision documents are met; and all controls required for protectiveness, including institutional controls, are in place.

the SPIM or other guidance to mandate the use of the "Institutional Controls" module, citing different regional priorities, workloads, and data entry procedures.

The regions use the SPIM to guide their SEMS data entry practices. The regions also use other OLEM guidance when creating their Data Entry Control Plans. All ten regional Data Entry Control Plans include language from the *2023 SEMS Data Quality Control Plan Guidance*, which emphasizes that data in SEMS should be of the "highest quality" and "readily available" for use by the EPA and government oversight offices. Nine of the ten Data Entry Control Plans refer to the SPIM to define "complete" data in SEMS. However, the guidance for entering institutional control data in SEMS in general has varied over the years. Except for the 2015 SPIM, all other SPIMs indicated that institutional control data should be entered into the current Superfund information management system. However, the stated purpose of the data varied. The only SPIMs that required institutional control data for planning and reporting were the 2010 through 2012 SPIMs. In contrast, the earlier SPIMs required institutional control data only to receive credit for other site accomplishments, such as issuing a Record of Decision. The data were not required when the institutional control was implemented. Users had the flexibility to enter the data later. Beginning with the 2015 SPIM, the SPIMs stopped discussing the requirements for institutional control data. Instead, the SPIMs focused on overall data quality and the institutional control instruments. For example, since 2018, institutional control instruments have been listed as "high value documents" under the "Program Required Documents" section of the SPIM. The 2022 SPIM, which was the most current version of the SPIM at the time of our fieldwork, still identified institutional control instruments as high-value documents that must be uploaded to SEMS, but the SPIM did not overtly require users to enter institutional control data in the "Institutional Controls" module.

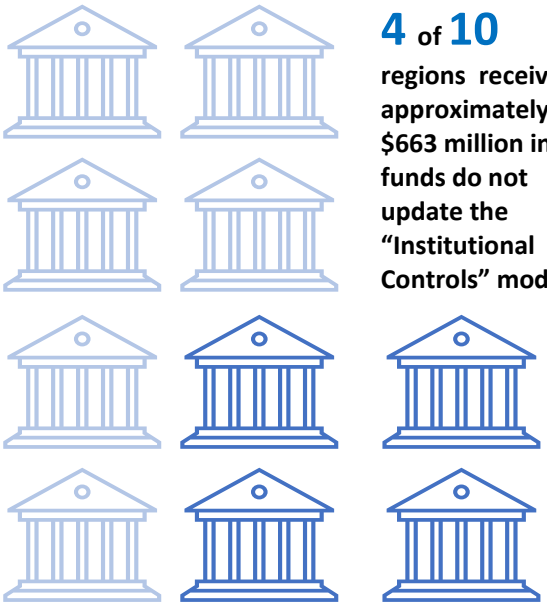
At the time of our fieldwork, the only OLEM guidance we identified that described the use of the "Institutional Controls" module related to documenting when a site has achieved "Sitewide Ready for Anticipated Use" status. This document, issued in September 2023, summarizes the information required in SEMS to fully document that a site achieved its goal of being ready for reuse. Specifically, the guidance states that "[s]ite teams are encouraged to enter information on [institutional controls] in place into both the Records Management and Site Management ['Institutional Controls'] modules of SEMS at the time of SWRAU [Sitewide Ready for Anticipated Use] achievement." OLEM frames this as "encouragement," not a requirement. Furthermore, the guidance focuses on documenting institutional control information in support of another site accomplishment instead of as a standalone site accomplishment, as discussed previously.

Our review of SEMS 2.0-related documents and training suggests that the system upgrade will improve user capabilities and the user experience. With this upgrade, it is an opportune time for the EPA to strengthen its guidance related to data in the "Institutional Controls" module. However, based on our review of the training materials and our interviews with regional staff, neither the training nor the direction from regional or headquarters management instructed users to update the data in the SEMS 2.0 "Institutional Controls" module. Without efforts to ensure that the data in the system are complete and accurate and without guidance to ensure that the data remain up to date, the upgrade to SEMS 2.0 will not improve the documentation of institutional controls.

Regions Have Varied Approaches to Institutional Control Data Entry

Regional understanding and treatment of institutional control instruments and data generally mirrors requirements outlined in the SPIM. Interviewees in eight of the ten regions confirmed that they were to upload institutional control instruments to the SEMS "Records Management" module, as the SPIM requires. However, as the 2022 SPIM did not require the use of the "Institutional Controls" module, half of the interviewees said that their region generally does not use this module. Specifically, interviewees in four regions said that updating the data in the "Institutional Controls" module was not required, while interviewees in two other regions were unsure whether that data entry was required.

Interviewees in three regions described their practices for regularly entering data in the "Institutional Controls" module. They reported entering the data during each five-year review, if not more often. Interviewees in four regions said that they do not update the "Institutional Controls" module for any site milestone. These four regions account for 25 of the 70 sites whose documentation we reviewed and will collectively receive approximately $663 million in IIJA funds. Additionally, interviewees in six regions explicitly stated that they would like direction or guidance from headquarters regarding use of the "Institutional Controls" module.



4 of 10 regions receiving approximately $663 million in IIJA funds do not update the "Institutional Controls" module.

Regional guidance and quality assurance processes mirror the requirements outlined in the SPIM and generally do not require institutional control data entry. Of the ten regional 2023 Data Entry Control Plans that we reviewed, only two mentioned institutional control data entry. One of these plans overtly specified that institutional controls were not part of their data review process. Furthermore, all ten Data Entry Control Plans describe regional quality assurance processes to ensure that the data in SEMS are accurate and ready for reporting. These processes include reviewing standard reports generated in SEMS at least quarterly and ensuring that the information entered in SEMS meets the completeness standards as defined in the SPIM. Examples of the information reviewed include site accomplishment information and financial and budgeting data. Classic SEMS included a standard report, the *Institutional Control Summary*, which EPA staff commonly refer to as the *PGMT-012*, for summarizing data in the SEMS "Institutional Controls" module. As of May 2024, SEMS 2.0 also had this reporting functionality. SEMS users can pull this report from the site level through the national level. However, none of the ten regional Data Entry Control Plans listed the *PGMT-012* as a report that the region reviews for accuracy. In comparison, every regional Data Entry Control Plan listed the *Superfund Accomplishment Report* as a report that the region reviews for accuracy on a quarterly or weekly basis.

Although most regional Data Entry Control Plans do not address the "Institutional Controls" module, EPA staff in three regions reported reviewing data in the module for accuracy and completeness during the five-year review process. Because *PGMT-012* only reports what data are in the module, there is no way to determine whether documents are missing from the SEMS "Records Management" module or whether data are missing from the SEMS "Site Management" module without a manual review of the individual site documents. Staff in these three regions read the Five-Year Review reports and manually update the information if they identify discrepancies between what is in the report and what is in the "Institutional Controls" module. If other regions adopted a similar approach, within the next five years all Superfund sites could have up-to-date, complete, and accurate information for reporting and oversight of institutional controls.

An OLEM official expressed concern that if the regional staff do not find value in the module, it would be difficult to require the regions to enter the information. During our interviews in January 2024, few regional staff said that their region used the standard *PGMT-012* institutional controls report, and some regional staff were not aware that the report existed. However, regional staff, including one staff member who did not use the "Institutional Controls" module, noted that the module could help their region identify necessary institutional controls, but they indicated that the reports would not be valuable given the incomplete data. One interviewee who used the "Institutional Controls" module said that the module was the only feasible way to review site-specific institutional control information in real time without sifting through hundreds of site documents in the SEMS "Records Management" module. While there may be varied experiences and uses for the data at the regional level, SEMS is not a regional system—it is the nationwide system for managing the Superfund Program. Accordingly, it remains OLEM headquarters' responsibility to outline requirements that would ensure the institutional control data in the system are complete and accurate. Without quality data, it is unlikely that staff in OLEM headquarters or in the regions will recognize the full potential of the SEMS "Institutional Controls" module's reporting and oversight capabilities.

Incomplete Data Limit Programwide Oversight, Reporting, and Public Communication of Institutional Controls

Without internal controls in place to ensure complete and accurate data in the "Institutional Controls" module, neither OLEM headquarters nor regional management can effectively use SEMS for oversight, reporting, or meaningful decision-making related to institutional controls as described in the SPIM.

The EPA should be able to identify which Superfund sites are relying on institutional controls to protect site remedies, whether institutional controls have been implemented or are planned for a future phase of the site, and whether institutional controls are being monitored or enforced. Although the Five-Year Review reports, Records of Decision, and other documents like the Institutional Control Implementation and Assurance Plans may also contain institutional control information, neither SEMS users nor the system's reporting features can easily extract institutional control information from the documents to facilitate programwide reporting. Therefore, these documents cannot be used for reporting or quickly identifying sites that may need more attention, resources, or assistance related to institutional controls.

While staff verify that institutional controls are in place and confirm that the controls prevent exposure to the site's contaminants during five-year reviews, this review frequency may not accurately reflect site conditions. Violations of the institutional controls may also continue in the interim. The example in the box to the right illustrates what can happen when institutional controls are not monitored or enforced.

While five years is CERCLA's statutorily required interval for the EPA's full assessment of a site remedy, other information that reflects site conditions may be available in the interim. For example, stakeholders may have operation and maintenance reports that more accurately reflect site conditions.[12]

The time between five-year reviews provides an opportunity for violations to persist

In our report on the Escambia Wood Treating Company Superfund site, we found that the restrictive covenants put in place to prevent residential or recreational use of the site were not enforced, resulting in a large encampment of homeless persons at the site. According to the Five-Year Review reports and operation and maintenance reports, camping and trespassing have been ongoing at the site since at least March 2007. If the site's institutional controls were reviewed more frequently or if the unenforced institutional controls had been documented in the "Institutional Controls" module, the EPA might have been able to address the issues sooner.

Timely and accurate information in the "Institutional Controls" module regarding a site's institutional control status and effectiveness, including relevant information from operation and maintenance reports, could make regional and OLEM headquarters staff aware of site issues nationwide. It would also provide OLEM headquarters staff the opportunity to assist regional staff who may be encountering difficulties with adequately implementing, monitoring, or enforcing institutional controls.

Adequate implementation and timely oversight of institutional controls reduces the risk to the public, environment, and remedial investments in all phases of a Superfund site's remediation. Given that the IIJA sets aside $3.5 billion for remedial actions at dozens of Superfund sites, the vast majority of which will be spent on physical remedies, timely and adequate protection of these remedies through strong and well-overseen institutional controls is critical to ensuring that the funds benefit the Superfund Program as intended. With SEMS 2.0 under development and in a phased release, the EPA has an

[12] Once the EPA-financed remedy to clean up contamination at a Superfund site is functioning properly, CERCLA requires the state in which the site is located to assume responsibility for operation and maintenance of the remedy. Operation and maintenance reports are routine reports prepared by the potentially responsible party or the state that summarize operation and maintenance activities.

opportunity to reintroduce the collection and management of robust institutional control data. With OLEM headquarters guidance that defines the purpose, use, and maintenance of the data, the regional offices can consistently collect and manage institutional control data and contribute to regional and national oversight. While the scope of our evaluation was limited to examining institutional control data for sites receiving IIJA funds, the EPA has the opportunity to improve its oversight, reporting, and public communication by incorporating institutional control data for all Superfund sites.

Recommendations

We recommend that the assistant administrator for Land and Emergency Management:

1. Distribute guidance to regions regarding the purpose, use, and maintenance of institutional control data in the Superfund Enterprise Management System 2.0 "Institutional Controls" module.

2. Develop a process to ensure that the Superfund Enterprise Management System 2.0 "Institutional Controls" module data remain current and up to date.

3. Direct the regions to conduct a timely review of the information in the "Institutional Controls" module for all Infrastructure Investment and Jobs Act-funded Superfund sites to ensure that the data are complete and accurate.

4. Require the regions to enter data into the Superfund Enterprise Management System 2.0 "Institutional Controls" module during their five-year reviews.

5. Update Superfund Enterprise Management System 2.0 so that users can track planned institutional controls at Superfund sites or identify another mechanism that enables users to report on the status of planned or implemented institutional controls at Superfund sites programwide.

Agency Response and OIG Assessment

Appendix C contains OLEM's response to our draft report. OLEM also provided technical comments, which we reviewed and used to make appropriate changes to our report. OLEM agreed with Recommendations 1, 2, 3, and 4 and described corrective actions that responded to our recommendations. We consider these four recommendations resolved with corrective actions pending.

OLEM disagreed with Recommendation 5, which asked the Agency to update SEMS 2.0 so that users can track planned institutional controls at Superfund sites. The Agency indicated that Superfund site managers have other tools to track planned institutional controls, namely the Institutional Control Implementation and Assurance Plans. Further, Agency officials said that major changes to SEMS require a needs assessment. They added that, if a needs assessment indicates that the information system is the proper mechanism for enhanced institutional control planning, the Agency must gather the requirements and design, develop, and test the system update. Therefore, OLEM requested that we

revise Recommendation 5 to "conduct a needs assessment to determine the most effective mechanism to track planned ICs [institutional controls]" and proposed that the Agency complete the needs assessment in the first quarter of fiscal year 2026.

We agree that any update to SEMS 2.0 should follow standard system development procedures. We recognize that, based on the results of the suggested needs assessment, the Agency may decide that SEMS 2.0 is not the most effective way to track planned or implemented institutional controls. Therefore, we updated Recommendation 5 to include an additional approach to address our finding.

While we agree the Agency should follow standard procedures, our recommendation is to reinstate a functionality the Agency previously determined it needed. Specifically, the GAO's recommendation to track institutional controls, a recommendation that the EPA agreed with, was not fully addressed in classic SEMS, nor will it be addressed in SEMS 2.0. The 2005 GAO report that we discussed in the "Background" section determined that the Superfund Program's information system needed improved tracking of institutional controls. In response to the GAO's recommendation that the EPA improve its oversight of institutional controls at Superfund sites, the EPA improved the Institutional Controls Tracking System to also allow users to track both planned and implemented Superfund site institutional controls. As noted earlier in our report, the EPA consolidated the Institutional Controls Tracking System and other databases into SEMS. However, the Agency did not retain the ability to track planned institutional controls in the new system.

While an Institutional Control Implementation and Assurance Plan is one of the tools available to site managers for tracking planned institutional controls at Superfund sites, these documents would not feed into SEMS's reporting mechanisms, as programwide institutional control information cannot be easily extracted from these documents by the system or its users. Furthermore, OLEM does not require site managers to draft and use Institutional Control Implementation and Assurance Plans for Superfund sites, regardless of a site's complexity. Therefore, we are concerned that these plans would not be a reliable, programwide source of institutional control information. Recommendation 5 remains unresolved.

Status of Recommendations

Rec. No.	Page No.	Recommendation	Status*	Action Official	Planned Completion Date
1	15	Distribute guidance to regions regarding the purpose, use, and maintenance of institutional control data in the Superfund Enterprise Management System 2.0 "Institutional Controls" module.	R	Assistant Administrator for Land and Emergency Management	3/31/25
2	15	Develop a process to ensure that the Superfund Enterprise Management System 2.0 "Institutional Controls" module data remain current and up to date.	R	Assistant Administrator for Land and Emergency Management	3/31/25
3	15	Direct the regions to conduct a timely review of the information in the "Institutional Controls" module for all Infrastructure Investment and Jobs Act-funded Superfund sites to ensure that the data are complete and accurate.	R	Assistant Administrator for Land and Emergency Management	3/31/25
4	15	Require the regions to enter data into the Superfund Enterprise Management System 2.0 "Institutional Controls" module during their five-year reviews.	R	Assistant Administrator for Land and Emergency Management	3/31/25
5	15	Update Superfund Enterprise Management System 2.0 so that users can track planned institutional controls at Superfund sites or identify another mechanism that enables users to report on the status of planned or implemented institutional controls at Superfund sites programwide.	U	Assistant Administrator for Land and Emergency Management	—

C = Corrective action completed.
R = Recommendation resolved with corrective action pending.
U = Recommendation unresolved with resolution efforts in progress.

Appendix A

Types of Institutional Controls

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

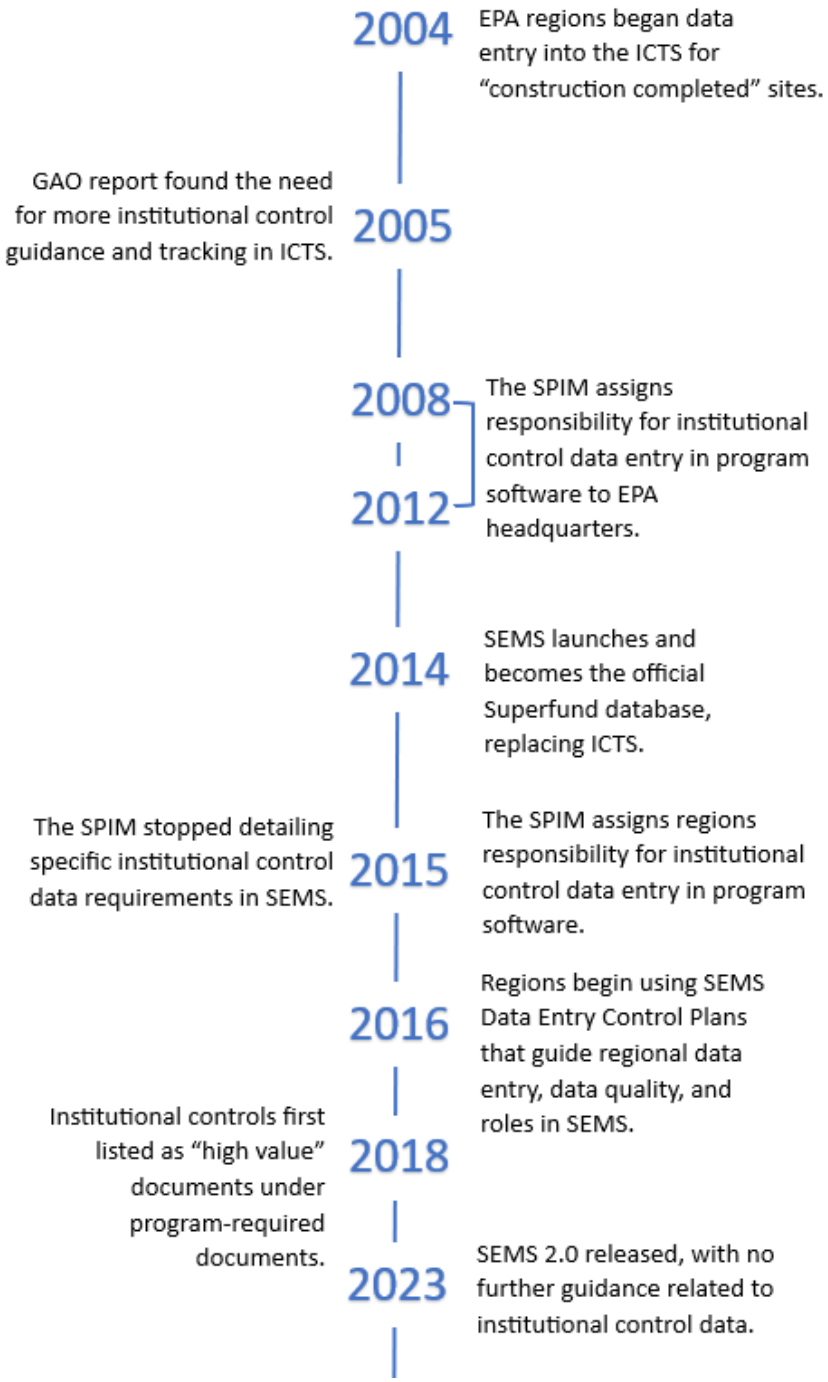
Proprietary controls: These are controls on private property that prohibit or restrict activities or use. The EPA or another stakeholder, such as a state, tribe, or potentially responsible party, can make agreements with the property owner and enforcement authority to prohibit or restrict activities or use. For example, the EPA may work with a property owner and the local governmental entity to restrict digging past a certain soil depth to protect prior remedies or to prevent human exposure to health hazards.

Governmental controls: The EPA may work with a state, tribal, or local government to implement land-use or zoning restrictions on a property. For example, the EPA may prohibit future residential use of a remediated property in perpetuity. Government entities responsible for overseeing these controls have enforcement authority.

Informational devices: Such devices include information and notifications provided to local communities, site users, or other interested persons to indicate that residual contamination remains on site. These typically do not establish legal duties or prohibitions. For example, the EPA may send informational mailers to property owners to inform them of contamination on their property and advise them not to consume groundwater or bring contaminated soil into their homes. The EPA may also post information on physical signage at a contaminated site. 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 with institutional control components: These are legal tools that limit site activities or require performance of specific activities. 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.

Timeline of Superfund Program Implementation Manual Updates



Note: ICTS = Institutional Controls Tracking System.

Source: OIG analysis of EPA documents. (EPA OIG image)

Agency Response

OFFICE OF LAND AND EMERGENCY MANAGEMENT
WASHINGTON, D.C. 20460

November 18, 2024

MEMORANDUM

SUBJECT: Response to Office of Inspector General Draft Report No. OSRE-FY24-0027 "The EPA Has the Opportunity to Improve Its Tracking and Oversight of Institutional Controls When It Upgrades the Superfund Enterprise Management System," dated October 18, 2024

FROM: Barry N. Breen
Principal Deputy Assistant Administrator

BARRY BREEN
Digitally signed by BARRY BREEN
Date: 2024.11.18 15:50:53 -05'00'

TO: Sean O'Donnell, Inspector General
Office of Inspector General

Thank you for the opportunity to respond to the issues and recommendations in the subject evaluation report. Following is a summary of the agency's overall position, along with its position on each of the report recommendations. For those report recommendations with which the agency agrees (Recommendations 1, 2, 3, and 4), we have provided high-level intended corrective actions and estimated completion dates to the extent we can. For the report recommendation with which the agency does not agree (Recommendation 5), we have explained our position, and proposed an alternative to the recommendation. For your consideration, we have also included a Technical Comments Attachment to supplement this response, which includes input from the Office of Land and Emergency Management (OLEM) and regional users of the Superfund Enterprise Management System (SEMS).

AGENCY'S OVERALL POSITION

OLEM generally agrees with the substance of the recommendations of the OIG report and the intent to improve data quality of the SEMS Site Management Institutional Control (IC) screens. The report provides a worthwhile review of IC tracking in SEMS with respect to IC instruments as program records

and their associated metadata. While OLEM's Office of Superfund Remediation and Technology Innovation (OSRTI) recognizes the importance of IC data quality in SEMS, public awareness and oversight of ICs does not depend on internal information included in SEMS and is accomplished through other existing tools in the Superfund program. As part of OSRTI's recognition of the importance of this issue, OSRTI led a group of regional SEMS users through an effort to improve IC tracking in SEMS prior to the transition to SEMS 2.0. That effort led to screen improvements, more prominent display of the IC screens in SEMS 2.0 compared to classic SEMS, enhanced guidance in the Fiscal Year (FY) 2025 *Superfund Program Implementation Manual* (SPIM), and the creation of an *Institutional Controls User Guide* for SEMS 2.0 screens to aid regional system users in entering data in a thorough and timely manner. As a result of these recent efforts, the Superfund program has already implemented some steps to help improve IC tracking in SEMS and is well positioned to effectively implement the recommendations to further improve data quality.

OSRTI envisions a comprehensive memo to the regions that amplifies existing guidance on tracking implemented ICs in SEMS, including direction to update information on implemented ICs for Infrastructure Investment and Jobs Act (IIJA)-funded sites. OSRTI will update the annual *SEMS Data Quality Control Plan Guidance* to ensure that each region outlines in its Data Quality Control Plan their specific plan to ensure the IC screens in SEMS Site Management are updated and then remain current. Regions will be reminded of the opportunity to leverage the Five-Year Review (FYR) process to review IC data but will not be limited to the FYR process as the only point in time to ensure data quality and completeness of implemented IC data in SEMS Site Management IC screens, given that other program guidance sets expectations for more timely updates going forward.

With respect to updating SEMS to allow for tracking of planned ICs, OLEM offers an alternative recommendation to demonstrate proper consideration of user needs in light of standard system development and budget procedures. Before committing to complex system updates, it is essential to conduct a detailed needs assessment that fully considers the existing tools along with input from data entry staff and IC subject matter experts in all ten regions and partner offices at headquarters. If the needs assessment results in a decision to enhance IC planning data in SEMS, then additional phases of requirements gathering, design, development and testing will need to be planned in light of overall SEMS 2.0 development priorities and program budget. While undertaking this comprehensive needs assessment, OLEM will continue to highlight the value of other IC planning tools that are already in place, such as the use of Institutional Controls Implementation and Assurance Plans (ICIAPs). The remedial and enforcement programs have already and continue to offer training on ICIAPs and to share best practices and model ICIAPs available in the SEMS Records Management Module.

AGENCY'S RESPONSE TO REPORT RECOMMENDATIONS

Agreements

No.	Recommendation	High-Level Intended Corrective Action(s)	Estimated Completion by Quarter and FY
1	Distribute guidance to regions regarding the purpose, use, and maintenance of institutional control data in the SEMS 2.0 "Institutional Controls" module.	1.1 The *FY 2025 Superfund Program Implementation Manual (SPIM)* (OLEM Directive 9200.3-158) already directs Regions to enter IC instruments as record documents in SEMS Record Management once they are implemented. Additionally, the FY2025 SPIM already directs Regions to enter IC-related metadata in the IC screens in SEMS Site Management once they are implemented. Finally, the FY2025 SPIM does define the purpose of the IC screens in SEMS Site Management and refers regions to the *Institutional Controls User Guide* for detailed information on entering IC-related metadata in the IC screens in SEMS Site Management. 1.2 OSRTI will send a memo to the Regions to amplify the updates to the FY2025 SPIM and the *Institutional Controls User Guide*, and to provide other guidance described in response to Recommendations 2, 3 and 4.	FY 2025 SPIM complete, 09/01/2024 Institutional Controls User Guide complete, 08/06/2024 Issuance of OSRTI memo, 2nd Quarter FY 2025
2	Develop a process to ensure that the SEMS 2.0 "Institutional Controls" module data remains current and up to date.	2.1 OSRTI will update the *FY2025 SEMS Data Quality Control Plan Guidance* to instruct the regions to address the SEMS Site Management IC screens in their annual Data Quality Control Plan. 2.2 Each region will specify plans for entering and maintaining current, complete, consistent, and accurate IC data in SEMS in their	Updates to the *SEMS Data Quality Control Plan Guidance*, 1st Quarter FY 2025 Submissions of Updated Regional Data Quality Control Plans, 2nd Quarter FY 2025

		respective annual Data Quality Control Plan. 2.3 OSRTI will amplify the updates to the *SEMS Data Quality Control Plan Guidance* in the same memo that provides guidance described in response to Recommendations 1, 3 and 4.	Issuance of OSRTI memo, 2nd Quarter FY 2025
3	Direct the regions to conduct a timely review of the information in the "Institutional Controls" module for all IIJA-funded Superfund sites to ensure that the data are complete and accurate.	3.1 OSRTI will direct the regions to review and update the SEMS Site Management IC screens for IIJA-funded sites subject to the OIG review that have implemented ICs in the same memo that provides guidance described in response to Recommendations 1, 2 and 4.	Issuance of OSRTI memo, 2nd Quarter FY 2025
4	Require the regions to enter data into the "Institutional Controls" module during their five-year reviews.	4.1 OSRTI will direct the regions to update the SEMS Site Management IC screens for sites where ICs have been implemented in the same memo that provides guidance described in response to Recommendations 1, 2 and 3. While the FYR process is one point in time that could be helpful to check and update the IC screens for previously implemented ICs, there could be other opportunities to provide these updates in a timelier manner going forward. OSRTI will ask the regions to update these screens in the most expeditious timeframe, including leveraging the FYR where appropriate.	Issuance of OSRTI memo, 2nd Quarter FY 2025

Disagreements

No.	Recommendation	Agency Explanation/Response	Proposed Alternative
5	Update SEMS 2.0 so that users can track planned institutional controls at Superfund sites.	OLEM agrees it is worthwhile to enhance IC planning. The program does have effective tools already in place, such as Institutional control implementation and assurance plans	OLEM requests that Recommendation 5 be revised to state: "Conduct a needs assessment to determine the

		(ICIAPs), that can be developed with site partners to include additional details related to planned ICs for a site. An ICIAP also documents required monitoring and enforcement procedures for ICs that will ensure adequate description of O&M responsibilities as required by CERCLA and the NCP. ICIAPs are a more appropriate tool for planning the complexities of multiple types of ICs across multiple parcels compared to SEMS. ICIAPs are important program records that are stored in SEMS and can be shared to Site Profile Pages and other EPA internet sites, depending on document access controls set in the system. OSRTI and the Office of Site Remediation Enforcement have already and continue to offer training and tools to regions on the benefits and application of ICIAPs and have made example ICIAPs available to view. The IC screens in SEMS Site Management were not designed to track planned ICs. A change of this magnitude first requires a proper user needs assessment. If SEMS is determined to be the proper mechanism for enhanced planning, then the SEMS team would initiate requirements gathering, screen design and system development consistent with the standard procedures and budgeting for an IT system of the size and complexity of SEMS. Additionally, any new updates or changes to SEMS would then be planned and prioritized in light of overall SEMS 2.0 development efforts.	most effective mechanism to track planned ICs." Complete needs assessment, 1st Quarter FY 2026

CONTACT INFORMATION

If you have any questions regarding this response, please contact Kecia Thornton, Audit Follow-up Coordinator, in the Office of Land and Emergency Management. Kecia may be reached at (202) 566-1913 or Thornton.Kecia@epa.gov.

Attachment (Technical Comments)
cc: Cliff Villa
Rick Kessler
Larry Douchand, OSRTI
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