OFFICE OF INSPECTOR GENERAL
U.S. ENVIRONMENTAL PROTECTION AGENCY

CUSTOMER SERVICE ★ INTEGRITY ★ ACCOUNTABILITY

Cleaning up and revitalizing land

EPA's Office of Land and Emergency Management Lacked a Nationally Consistent Strategy for Communicating Health Risks at Contaminated Sites

Report No. 21-P-0223 **September 9, 2021**

Report Contributors:

Bakari Baker
Ben Beeson
Morgan Collier
Seth Gerhart
Natasha Henry
Allison Krenzien
Tina Lovingood
Ryan Maxwell
Patrick Milligan
Roopa Mulchandani
Bo Park
Naomi Rowden
Jill Trynosky

Abbreviations:

EPA	U.S. Environmental Protection Agency
OIG	Office of Inspector General
OLEM	Office of Land and Emergency Management
PFAS	Per- and Polyfluoroalkyl Substances
RCRA	Resource Conservation and Recovery Act
U.S.C.	United States Code

Cover Photos: We reviewed eight contaminated sites addressed under Office of Land and Emergency Management programs, including the three Superfund sites pictured *(left to right)*: Anaconda Company Smelter, Montana; Coakley Landfill, New Hampshire; and USS Lead, Illinois. (EPA photos)

Are you aware of fraud, waste, or abuse in an EPA program?

EPA Inspector General Hotline
1200 Pennsylvania Avenue, NW (2431T)
Washington, D.C. 20460
(888) 546-8740
(202) 566-2599 (fax)
OIG_Hotline@epa.gov

Learn more about our OIG Hotline.

EPA Office of Inspector General
1200 Pennsylvania Avenue, NW (2410T)
Washington, D.C. 20460
(202) 566-2391
www.epa.gov/oig

Subscribe to our Email Updates
Follow us on Twitter @EPAoig
Send us your Project Suggestions

Office of Inspector General
U.S. Environmental Protection Agency
At a Glance

21-P-0223
September 9, 2021

Why We Did This Audit

The U.S. Environmental Protection Agency's Office of Inspector General conducted this audit to determine whether the EPA is communicating sampling results or other indicators of human health risk in a manner that allows impacted communities to make decisions about managing their risks of exposure to harmful contaminants or substances. The audit covered eight contaminated sites.

According to the EPA, risk communication is intended to provide community members "with the information they need to make informed, independent judgements about risks to health, safety, and the environment." The EPA has made risk communication a priority.

This audit supports an EPA mission-related effort:

- *Cleaning up and revitalizing land.*

This audit addresses these top EPA management challenges:

- *Communicating risks.*
- *Integrating and leading environmental justice.*

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

List of OIG reports.

EPA's Office of Land and Emergency Management Lacked a Nationally Consistent Strategy for Communicating Health Risks at Contaminated Sites

What We Found

As part of its mission to protect human health, the EPA communicates risks from contaminated sites to the public. Without accurate, clear, and timely information, residents living on or near contaminated sites cannot take precautions, if necessary, to protect their health and safety.

The EPA did not consistently communicate human health risks at select sites being addressed by Office of Land and Emergency Management, or OLEM, programs in a manner that allowed impacted communities to decide how to manage their risks of exposure to harmful contaminants. OLEM did not consistently adhere to existing guidance on risk communication, including the EPA's *Seven Cardinal Rules of Risk Communication*.

At the eight contaminated sites we reviewed, OLEM struggled with risk communication because it lacked specific guidance to provide EPA personnel with best practices for addressing environmental justice concerns, timeliness, coordination, and clear communication. Inefficiencies in the EPA's risk communication resulted in communities not being able to consistently rely on the EPA as a credible source to manage their risks. Absent a national strategy, OLEM's risk communication is not consistently integrated and applied across programs and regional offices, including for sites in the same program, in similar locations, or with the same contaminants. Also, without a measurable definition of "timely" risk communication, OLEM does not have deadlines for how long it should take to communicate site risks and sampling results to affected communities.

Recommendations and Planned Agency Corrective Actions

We recommend that OLEM implement internal controls to (1) achieve OLEMwide, nationally consistent risk communication to improve public awareness and understanding of risks; (2) monitor its risk communication efforts; and (3) provide community members with information to manage their risks when exposed to actual or potential environmental health hazards. All recommendations are resolved with corrective actions pending. We also revised our report where appropriate based on technical comments provided by the Agency.

Noteworthy Achievements

The EPA hired a senior risk communications advisor in November 2019. In December 2020, the EPA developed and launched a "premier, scientifically-grounded risk communication training platform."

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE INSPECTOR GENERAL

September 9, 2021

MEMORANDUM

SUBJECT: EPA's Office of Land and Emergency Management Lacked a Nationally Consistent Strategy for Communicating Health Risks at Contaminated Sites
Report No. 21-P-0223

FROM: Sean W. O'Donnell

TO: Barry Breen, Acting Assistant Administrator
Office of Land and Emergency Management

This is our report on the subject evaluation conducted by the Office of Inspector General of the U.S. Environmental Protection Agency. The project number for this evaluation was OA&E-FY19-0031. 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 is responsible for the issues discussed in this report. In accordance with EPA Manual 2750, your office provided acceptable planned corrective actions and estimated milestone dates in response to the three OIG recommendations. These recommendations are resolved, and no final response to this report is required. If you submit a response, however, it 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.epa.gov/oig.

Table of Contents

Chapters

Appendixes

Chapter 1
Introduction

Purpose

The U.S. Environmental Protection Agency's Office of Inspector General initiated this audit to determine whether the EPA is communicating sampling results or other indicators of human health risk at select sites in Office of Land and Emergency Management, or OLEM, programs in a manner that allows impacted communities to avoid exposure to harmful contaminants or substances.

Top Management Challenges Addressed

This audit addresses the following top management challenges for the Agency, as identified in OIG Report No. 20-N-0231, *EPA's FYs 2020–2021 Top Management Challenges*, issued July 21, 2020:

- Communicating risks.
- Integrating and leading environmental justice.

Background

The EPA's mission statement asserts that the Agency works to ensure that "[a]ll parts of society—communities, individuals, businesses, and state, local and tribal governments—have access to accurate information sufficient to effectively participate in managing human health and environmental risks." The EPA's ability to effectively communicate risk is a critical link to enabling community members to manage their risks of exposure to harmful contaminants.

Office of Management and Budget Circular A-123, *Management's Responsibility for Enterprise Risk Management and Internal Control*, dated July 15, 2016, requires that organizations develop and implement internal controls to help them achieve their mission, objectives, and goals. This audit evaluated the controls governing the Agency's risk communication efforts in support of the EPA's mission to protect human health and the environment.

In our *EPA Management Challenges* reports published in fiscal years 2019 and 2020,[1] we noted that one of the EPA's top management challenges is to improve risk communication by providing individuals and communities with sufficient information to make informed decisions to protect their health and the environment.

EPA's Definition of Risk Communication

The EPA updated its definition of risk communication as we conducted our work. When we began our audit in November 2018, the EPA's definition of risk communication was:

> Risk communication is the process of informing people about potential hazards to their person, property, or community… The purpose of risk communication is to help residents of affected communities understand the processes of risk assessment and

[1] EPA OIG, Report No. 19-N-0235, issued July 15, 2019, and Report No. 20-N-0231, issued July 21, 2020.

> management, to form scientifically valid perceptions of the likely hazards, and to participate in making decisions about how risk should be managed.

In March 2021, the EPA published a new definition of risk communication on its webpage:

> Risk communication is communication intended to supply audience members with the information they need to make informed, independent judgements about risks to health, safety, and the environment.

EPA's Risk Communication Priority

In July 2018, EPA Administrator Andrew Wheeler identified risk communication as one of his top priorities in a speech to EPA employees:

> Risk communication goes to the heart of EPA's mission of protecting public health and the environment. We must be able to speak with one voice and clearly explain to the American people the relevant environmental and health risks that they face, that their families face and that their children face.

The EPA has established several risk communication guidance documents. Chief among them is the *Seven Cardinal Rules of Risk Communication*, which the EPA issued in April 1988 (Table 1). The EPA published these "cardinal rules" as a nonbinding reference document, recognizing that their application will necessarily vary from case to case.

Table 1: EPA's *Seven Cardinal Rules of Risk Communication*

Rule		Excerpts
1	Accept and involve the public as a legitimate partner.	Involve the community early, before important decisions are made. Involve all parties that have an interest or stake in the issue under consideration.
2	Plan carefully and evaluate your efforts.	Begin with clear, explicit risk communication objectives—such as providing information to the public, motivating individuals to act, stimulating response to emergencies, or contributing to the resolution of conflict. Carefully evaluate efforts and learn from mistakes.
3	Listen to the public's specific concerns.	Take the time to find out what people are thinking. Let all parties that have an interest or a stake in the issue be heard. Let people know that you understand what they said, addressing their concerns as well as yours.
4	Be honest, frank, and open.	Disclose risk information as soon as possible (emphasizing any reservations about reliability). Do not minimize or exaggerate the level of risk.
5	Coordinate and collaborate with other credible sources.	Consult with others to determine who is best able to answer questions about risk. Try to issue communications jointly with other trustworthy sources.
6	Meet the needs of the media.	Be open with and accessible to reporters. Provide risk information tailored to the needs of each type of media.
7	Speak clearly and with compassion.	Use simple, nontechnical language. Use vivid, concrete images that communicate on a personal level.

Source: OIG-selected excerpts from the EPA's *Seven Cardinal Rules*. (EPA OIG table)

Of significant note, these cardinal rules establish that the Agency is to accept and involve the public as a "legitimate partner." The guidance also states that people and communities have the right to participate in decision-making processes that affect their lives, their property, and the things they value.

Also, the EPA established a cross-agency Risk Communication Workgroup. As part of the workgroup's efforts, the EPA published a September 2019 report, *Getting Risk Communication Right: Helping Communities Plan at Superfund Sites*, that sets objectives for improving risk communication.

OLEM Programs and Indicators to Address Contaminated Sites

The EPA's OLEM manages more than 30 programs and projects that address different types of contaminated sites under various offices. This audit addressed eight contaminated sites under four OLEM programs: the Emergency Response program; the Resource Conservation and Recovery Act, or RCRA, program; the Superfund program; and the Underground Storage Tank program.

OLEM-specific documents establish the office's policy, guidance, and direction for the Superfund, RCRA, and Emergency Response programs. For Superfund sites, the EPA developed the *Superfund Community Involvement Handbook*, updated in March 2020. The EPA also provides what it refers to as the Superfund Community Involvement Toolkit, which includes tools dated from 2002 through 2019. The toolkit provides Superfund regional site teams, community involvement staff, and others with a collection of aids for designing and enhancing community involvement activities. For RCRA sites, the EPA's *RCRA Public Participation Manual*, 2016 edition, guides risk communication. Emergency response site personnel refer to Superfund-related guidance as well as the EPA's *Crisis Communication Plan*, dated November 2016. The Underground Storage Tank program does not have specific risk communication criteria; however, the program offers guidelines for community engagement activities.

OLEM uses environmental indicators to report cleanup progress at sites, specifically whether:[2]

- Human exposure to contamination is under control or falls within the levels specified as safe by the EPA.
- Contaminated groundwater migration has been controlled to prevent further spread of contaminants.

OLEM uses these environmental indicators to measure performance, track specific environmental results, and inform the public about risks. OLEM posts the environmental indicators to its websites to aid in communicating risk at sites.

EPA's Environmental Justice Responsibilities

Under Executive Order 12898, the EPA has a responsibility to consider environmental justice in its programs. The EPA defines environmental justice as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies." According to an EPA Office of Environmental Justice official, environmental justice is a way to look at impacted communities that have vulnerable populations and the practice of understanding vulnerability and exposures.

[2] EPA, Office of Superfund Remediation and Technology Innovation, *Superfund Environmental Indicators Guidance Human Exposure Revisions*, March 2008.

Excerpt from Executive Order 12898, Which Addresses Environmental Justice

"To the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions, the District of Columbia, the Commonwealth of Puerto Rico, and the Commonwealth of the Northern Mariana Islands."

The EPA further defines "fair treatment" as meaning that "no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations or policies." The EPA's environmental justice website defines "meaningful involvement" as:

- People having an opportunity to participate in decisions about activities that may affect their environment or health.
- Allowing the public's contribution to influence the regulatory agency's decision.
- Considering community concerns in the decision-making process.
- Decision-makers seeking out and facilitating the involvement of those potentially affected.

In April 2021, EPA Administrator Michael S. Regan directed all EPA offices to clearly integrate environmental justice considerations into their plans and actions. In addition, the EPA announced new measures for the EPA to take in response to the presidential directive that all federal agencies embed equity into their programs and services to ensure the consistent and systematic fair, just, and impartial treatment of all individuals. Also, in January 2021, the president issued Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad*, which directed agencies to "make achieving environmental justice part of their missions by developing programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related and other cumulative impacts on disadvantaged communities."

Responsible Offices

The following OLEM program offices are responsible for communicating environmental sampling results and other human health indicators at the eight contaminated sites we reviewed as part of this audit:

- Office of Emergency Management.
- Office of Resource Conservation and Recovery.
- Office of Superfund Remediation and Technology Innovation.
- Office of Underground Storage Tanks.

However, OLEM regional offices are generally responsible for the day-to-day operations at contaminated sites, including receiving feedback from the community and conducting risk communication activities, risk assessments, site oversight, and public outreach and meetings.

Noteworthy Achievements

The EPA hired a senior risk communications advisor in the Office of the Administrator in November 2019. In 2020, the EPA developed and launched a "premier, scientifically-grounded risk communication training platform" and trained its first 100 staff participants. The platform and course cover governing principles from the science of risk and science communication, as well as the process for risk communication at the EPA.

Scope and Methodology

We conducted our work from November 2018 to May 2021. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

To help answer our objective and understand the environment in which Agency staff are conducting risk communication at OLEM program sites, we reviewed the EPA administrator's October 2018 statement regarding the priority of risk communication. We interviewed the Agency's senior risk communication advisor. We also reviewed the OIG's reports on top EPA management challenges for fiscal years 2019 and 2020–2021. We obtained risk communication-related documents from each OLEM program office, including guidance for risk communication activities at contaminated sites.

We reviewed the EPA's *Superfund Community Involvement Handbook*, Superfund Community Involvement Toolkit, *RCRA Public Participation Manual*, *Seven Cardinal Rules of Risk Communication*, and *Crisis Communication Plan*. We also reviewed relevant portions of the laws and regulations controlling the four OLEM programs that govern the eight contaminated sites we reviewed during our audit, as well as location-specific documentation. We analyzed risk communication criteria across ten federal agencies and compared them to the EPA's seven cardinal rules.

In addition, we reviewed Agency documentation regarding the Superfund Customer Satisfaction Survey that the EPA administered from January 1, 2015, through May 31, 2019. The regional Superfund programs may distribute the Customer Satisfaction Survey to community members at any stage during the cleanup process, including during post-construction activities, such as the EPA's "five-year review" process which evaluates every five years whether implemented remedies to clean up the sites remain protective of human health and the environment.

We also interviewed:

- EPA headquarters staff and management from the pertinent OLEM offices.
- EPA staff from the Office of Environmental Justice.
- EPA staff in Regions 1–3, 5, and 7–10.
- Risk communication experts external to the EPA.
- Staff at the Agency for Toxic Substances and Disease Registry.

- Local and state agency and elected officials at Superfund and RCRA sites in Montana, Indiana, and New Hampshire. At the Superfund sites in Montana and New Hampshire, we met with the parties primarily responsible for the cleanup of the contaminated sites, referred to as "potentially responsible parties."

We selected eight contaminated sites for further examination, including document analysis and staff interviews. We selected these eight sites based on input from EPA senior leaders, managers, and staff; the OIG's media and literature research; and analysis of information received by the OIG Hotline. We considered geographic location; types of contaminant; length of contamination; and demographics of the surrounding areas, including tribal and other communities with environmental justice concerns. We selected two sites from each of the Superfund, RCRA, Underground Storage Tank, and Emergency Response programs.

Table 2 lists the eight contaminated sites selected for this audit and identifies each site's location, EPA program and region, and primary contaminants. Refer to Appendix A for more information about these contaminants and their related health effects. Figure 1 shows the location of the eight sites we reviewed.

Table 2: Eight contaminated sites reviewed during this audit

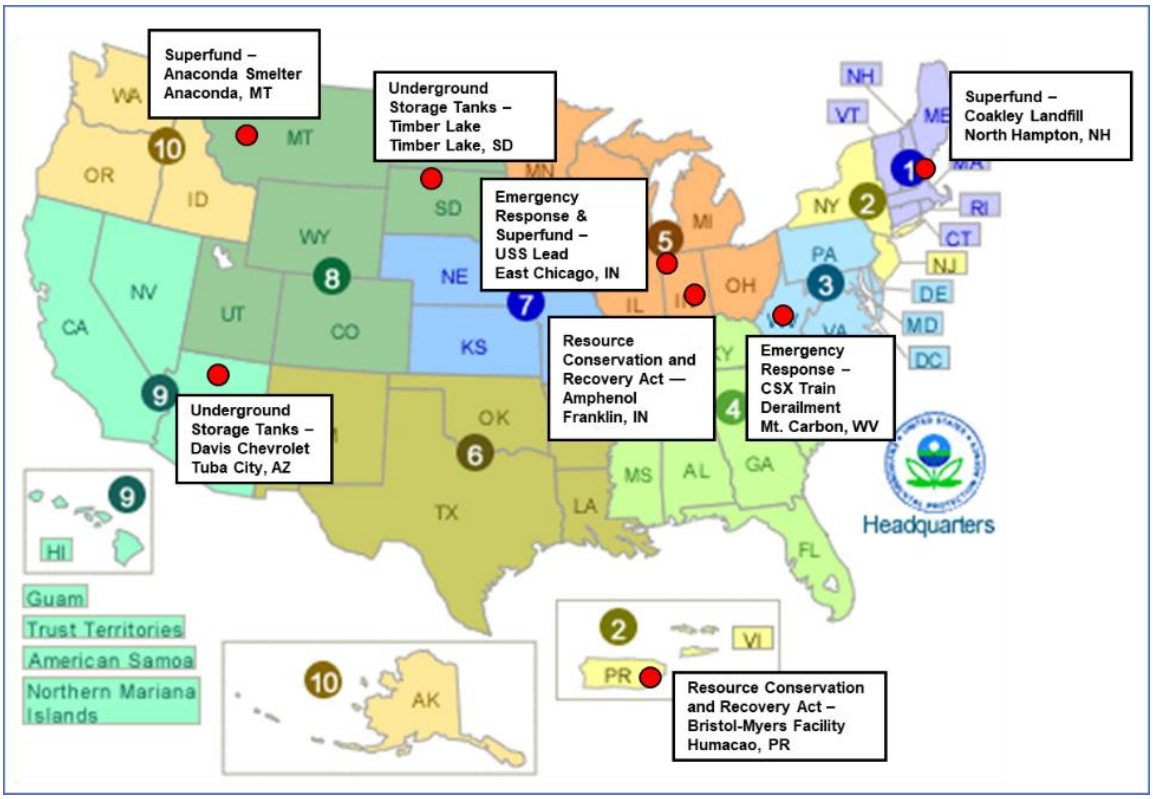
	Site	Location	EPA program and region	Primary contaminants
1	Amphenol/Franklin Power Products	Franklin, Indiana	• RCRA program • Region 5	• Trichloroethylene • Tetrachloroethylene
2	Bristol-Myers Facility	Humacao, Puerto Rico *This is a community with environmental justice concerns.*	• RCRA program • Region 2	• 1,4-dioxane • Methyl tertbutyl ether • Naphthalene • Benzene
3	USS Lead	East Chicago, Indiana *This is a community with environmental justice concerns.*	• Emergency Response and Superfund programs • Region 5	• Lead • Arsenic
4	Coakley Landfill	North Hampton, New Hampshire	• Superfund program • Region 1	• Per- and polyfluoroalkyl substances • 1,4-dioxane • Benzene • Tetrachloroethylene • Phenols • Arsenic • Chromium
5	Anaconda Company Smelter *	Anaconda, Montana	• Superfund program • Region 8	• Lead • Arsenic
6	Davis Chevrolet *This is a tribal site.*	Tuba City, Arizona	• Underground Storage Tank program • Region 9	• Benzene
7	Timber Lake ^ *This is a tribal site.*	Timber Lake, South Dakota	• Underground Storage Tank program • Region 8	• Benzene
8	CSX Train Derailment ^	Mount Carbon, West Virginia	• Emergency Response program • Region 3	• Volatile organic compounds • Polycyclic aromatic hydrocarbons

Source: OIG analysis of EPA documentation. (EPA OIG table)

* A site on the Administrator's Emphasis List, which includes Superfund sites that the EPA has targeted for immediate and intense attention.

^ The EPA is no longer actively performing cleanup at this site.

Figure 1: Map of EPA regions with examined sites identified



Source: OIG depiction of selected sites. (EPA OIG image)

From May through July 2019, we conducted site visits at five of the eight sites we reviewed: three Superfund or Emergency Response sites, one RCRA facility, and one Underground Storage Tank site. In addition to meeting with state and local leaders, we received detailed site tours from EPA technical staff and held public listening sessions for the Superfund and RCRA sites we visited. At the Underground Storage Tank site, we completed a tour of the site with EPA staff and conducted private meetings with tribal leaders.

We conducted an in-depth look at four of the eight sites we reviewed to determine how communities living on or near contaminated sites viewed the EPA's communication of risks: Amphenol/Franklin Power Products RCRA, USS Lead Superfund, Coakley Landfill Superfund, and Anaconda Company Smelter Superfund. Our in-depth look included holding public listening sessions at these four sites. Information about attending these sessions was advertised in news media, posted on the OIG's website, and disseminated via the EPA's email distribution lists for those four sites. During our listening sessions, we provided a written questionnaire to attendees to collect perspectives on the timeliness and effectiveness of OLEM's risk communication. We also accepted written comments by email or postal mail up to two weeks after each listening session.

We presented the key concerns raised by community members to the relevant EPA regional and headquarters staff within a few weeks of each site visit.

Prior Reports

Several prior OIG reports address risk communication issues. Appendix B details these prior reports.

Chapter 2
OLEM Did Not Consistently Communicate Risks to People Living on or Near Contaminated Sites

OLEM's risk communication efforts do not consistently provide community members who lived on or near contaminated sites with an understanding of their risk level or what steps, if any, were necessary to protect themselves from exposure to contamination. Furthermore, inconsistent with Office of Management and Budget Circular A-123, the EPA does not have some key internal controls over its risk communication to facilitate its mission to protect human health. Specifically, OLEM does not have a national strategy for risk communication, instead allowing its many programs and the ten EPA regions discretion in how to implement risk communication. OLEM does not have consistent policies or procedures across its programs to establish measurable standards on when to communicate risks and who should receive such communications. In addition, OLEM programs do not consistently use or promote existing tools that could improve risk communication. The EPA's ability to effectively communicate risk is a critical link to enabling community members to manage their risks of exposure to harmful contaminants.

OLEM Lacks National Risk Communication Strategy

OLEM does not have a national strategy in the form of uniform nationwide policies, procedures, or guidelines for conducting and evaluating its risk communication. To be effective, such a strategy should follow, where possible, the EPA's *Seven Cardinal Rules of Risk Communication* and should outline how OLEM will communicate risks consistently across all its programs and EPA regional offices. Specifically, to address the internal control weaknesses we found, the strategy should:

- Define relevant timelines for communications.
- Determine the parties who should be notified of the results of samples taken at sites to test for contaminants.
- Use and promote existing risk communication tools.
- Determine how to communicate risks for emerging contaminants, such as per- and polyfluoroalkyl substances, known as PFAS.

Absent a national strategy, OLEM's risk communication is not consistently integrated, applied, or evaluated across its programs or the EPA's regional offices.

OLEM uses the *Seven Cardinal Rules* as its primary guidance document for risk communication efforts. The EPA promotes a site-specific approach to risk communication, tailoring its efforts to conditions at a site and to a community's needs and preferences. As a result, we found that the EPA staff and managers who are involved in risk communication at contaminated sites relied on a variety of risk communication methods and techniques.

Although the *Seven Cardinal Rules* recommend that the Agency evaluate risk communication efforts, such as the timeliness and clarity of these efforts, OLEM does not require that its programs conduct such

an evaluation. This lack of evaluation limits the office's ability to understand where its efforts fall short. Ineffective risk communication can leave community members living on or near contaminated sites unaware of or uncertain about the risks to their health, as well as about what steps they could take to minimize their exposure to harmful contaminants.

OLEM Lacks Measurable Standard of Timely Risk Communication

The federal Superfund statute, relevant Superfund regulations, and OLEM's guidance documents do not address how to quantitatively measure the timeliness of risk communication. For example, the federal Superfund statute requires that the results of any analysis of samples taken from a site be communicated "promptly to the owner, operator, tenant, or other person in charge, if such person can be located."[3] Yet, OLEM has not established program standards defining "promptly" or set any deadlines by which it must or should provide sampling results to the impacted or potentially impacted owners, operators, tenants, or others in charge as provided in the statute.

OLEM's standard for risk communication timeliness varies between regions, especially regarding when EPA regions share sampling results. For example:

- In Region 7, a Superfund manager used a 30-day standard for sharing sampling results.
- In Region 5, the Superfund Division released a September 2017 memorandum, *Data Management and Communication at Residential Properties,* describing operating on an "as soon as possible" timeline. During interviews with us, other regions described similar, but undocumented, practices. In addition, Region 5's September 2017 memorandum highlights that if unverified data show a potential impact to human health, the region will release the data within 24 to 48 hours of receipt of the sampling results.

Site Example of Untimely Communication of Sampling Results

At the USS Lead site in East Chicago, Indiana, prior to the EPA's 2017 *East Chicago Enhanced Communications Plan*, it took months and, in some cases, years for the EPA to communicate information regarding sampling results or other human health indicators.

Absent specific written criteria and guidance, OLEM's current approach allows flexibility in how long the EPA takes to communicate site risk and sampling results without a means to measure accountability. Clearly defining the term "prompt" within OLEM is imperative for:

- A consistent approach at Superfund and other sites.
- Measuring the performance of timely communications of risk.
- Helping affected communities manage their risks of exposure to harmful contaminants.

OLEM Lacks Programwide Guidance on Who Should Receive Sampling Results

OLEM has no programwide guidance regarding which community members should be notified of sampling results in certain situations. This lack of specificity causes delays in OLEM's communication of risks to affected people in the communities near contaminated sites.

[3] Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9604(e)(4)(B).

For example, the Superfund statute uses the term "or" in reference to the individuals whom the EPA should notify about sampling and sampling results: "the owner, operator, tenant, *or* other person in charge" (emphasis added). The statute leaves it to the EPA to interpret who identified in the statute should receive the results, and the EPA has the discretion to notify other potentially impacted or exposed stakeholders as well.

Clearly defining in OLEM guidance who should receive sampling results is imperative for ensuring that all potentially exposed people are aware of the human health risks they may face. This is especially important in communities with environmental justice concerns or communities that are exposed to multiple sources of contamination, as they face increased risks to health and potentially other stressors, such as lower incomes and inaccessibility to healthcare.

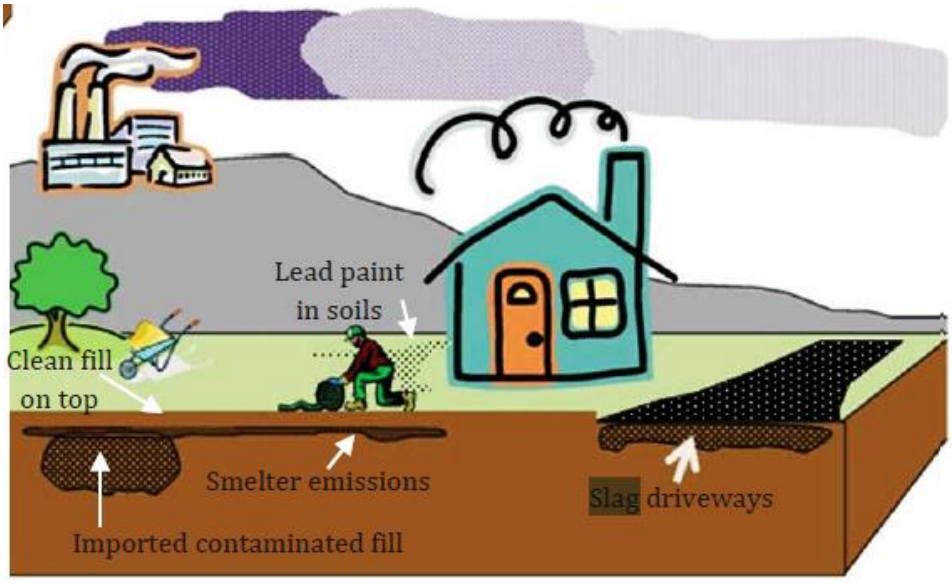
OLEM Does Not Consistently Use or Promote Existing Risk Communication Tools

Although the EPA has tools and guidance designed to engage communities and facilitate interactive communication, it did not consistently use these tools in its risk communication efforts at the eight contaminated sites we reviewed.

Cumulative Risk Assessments

Risks from multiple sources can add up to present a significant cumulative risk. The EPA's *Framework for Cumulative Risk Assessment*, dated May 2003, describes cumulative risk as "the combined risks from aggregate exposures to multiple agents or stressors." This framework also provides a conceptual model that could be used to clearly and visually communicate the cumulative risk of potential sources of contaminants to the public. Figure 2 depicts multiple sources of contamination found at the Anaconda site.

Figure 2: EPA's conceptual site model for the Anaconda site, 2013 revision



Source: Anaconda site's Record of Decision Amendment. (EPA image)

Graphically displaying cumulative risk is especially important in communities with environmental justice concerns and other communities that face exposure from multiple sources. However, although the EPA identified other contamination nearby the Amphenol and USS Lead sites, the conceptual site models for those two sites did not reflect the EPA's findings about contamination from other nearby sources.

Notifications of Sampling Results and Associated Actual or Potential Exposures

Although its mission is to protect human health, the EPA failed to consistently provide the public with explanations of sampling results, relevant guidance, and additional resources so that community members could make informed decisions about what steps they needed to take to protect themselves. For example, the EPA sent some sampling results to community members near the eight sites we reviewed that included notifications of potential exposure to environmental health hazards; however, these notifications did not include relevant guidance so that community members could take appropriate measures to protect themselves from these hazards. In addition, the EPA's protocols did not include informing the health community of the human health risks posed by exposure to contaminants. As a result, physicians and other health practitioners in the affected communities may not be able to appropriately treat their patients.

Specific examples from two of the eight sites we reviewed include:

- At the USS Lead site, a community member's child had blood lead test results exceeding the Centers for Disease Control and Prevention's blood lead reference value. Although the EPA did not conduct the blood lead testing and, according to the EPA, was not required to report the results, the community member expressed confusion about the EPA's role in regard to certain risk communication activities that could facilitate informed decisions about the child's health.
- At the Amphenol site, the EPA's risk communication did not reach the local medical and health community, despite the Agency working with the Indiana State Department of Health, Agency for Toxic Substances and Disease Registry, and Johnson County Health Department. A local physician we spoke with was not aware of the need to address the potential health impacts on, risks to, or concerns of patients who lived on or near the contaminated site.

A lack of or inadequate notifications of potential exposure causes uncertainty regarding what steps residents can take to mitigate their risks of potential exposure. It also prevents physicians or other health practitioners in the community from being fully aware of potential causes of illnesses.

Community Advisory Groups

EPA staff at the Amphenol site were unaware that community advisory groups could be employed for RCRA sites. Community advisory groups help provide public forums for community members to present and discuss their needs and concerns related to decision-making processes. The EPA's *Superfund Community Involvement Handbook* and the *RCRA Public Participation Manual* outline the use of community advisory groups as tools that allow for the exchange of concerns and information between community members, facility owners or operators, and the EPA or the authorized entities responsible for overseeing cleanup activities. According to the EPA's website, community advisory groups can assist the EPA in making better decisions about how to clean up a site. These groups offer the EPA a unique opportunity to hear—and seriously consider—community preferences for site cleanup and remediation. Subsequent to the OIG listening session with the community in June 2019 to address the community's

needs, the EPA began holding monthly Amphenol stakeholder calls in October 2019, which were attended by community members, elected officials, and medical and health entities.

Community Involvement Coordinators

The EPA did not have community involvement coordinators available to assist with risk communication at all the sites we reviewed, and OLEM is lacking policies and procedures to determine when the EPA should designate a community involvement coordinator at specific sites. According to the *Superfund Community Involvement Handbook*, the EPA may include a community involvement coordinator on the site team to plan and conduct community engagement and communication at contaminated sites. The EPA's community involvement coordinators strive to involve and inform the public about the Superfund process and response actions. A community involvement coordinator can directly influence the effectiveness of the EPA's risk communication and the public's perception of the EPA at a contaminated site. A community involvement coordinator can increase personal interactions, help reduce confusion, be available to answer questions, and conduct public outreach activities.

Site Examples of Community Involvement Coordinators: Successes and Struggles

At the USS Lead site, the EPA's community involvement coordinator delivered the information necessary to address community concerns. Community members told us that they were grateful for the accessibility of this on-site coordinator. In addition, another community involvement coordinator was hired to help produce bilingual materials.

The Anaconda site did not have a locally based community involvement coordinator for most of 2018–2019. Community members in Anaconda expressed that a local coordinator is necessary to fully understand the complexities of the site and the specific needs of the local community. As of July 2021, the EPA's webpage for the Anaconda site lists a community involvement coordinator.

Customer Satisfaction Surveys

EPA regions inconsistently used customer satisfaction surveys to measure community members' satisfaction of the Agency's cleanup efforts. According to OLEM, the regions use the Superfund Customer Satisfaction Survey to assess how well EPA staff listen to community member concerns about the cleanup and allow for community participation in the planning and decision-making process. The survey also includes questions related to risk communication. However, the survey is used differently across regions, and not all regions use it.

The Superfund Customer Satisfaction Survey is one tool that could be part of an overall evaluation practice to help the EPA identify shortcomings or best practices of risk communication at contaminated sites. Surveys and other evaluation tools could help the EPA define, measure, and improve public involvement, as well as inform the EPA what modifications are needed to develop a national risk communication strategy.

Site-Specific Websites

Public websites can be an effective tool for the EPA to openly and frankly communicate with the communities impacted by contaminated sites. We found, however, that the EPA's site-specific websites for three of the eight sites we reviewed were out of date or did not fully reflect what the Agency knew about site conditions. An outdated website means that the public may not be able to obtain or understand the most recent, accurate information about the risks at a contaminated site.

Although the EPA uses a variety of methods—not just websites—to communicate site risks to the public, for fully effective risk communications, the websites for contaminated sites need to be up to date,

accurate, and accessible to the affected communities. Inaccurate or outdated information on EPA websites could hinder community members' decision-making related to managing their risks and protecting human health.

Disclosures

At four of the eight sites we reviewed, we identified an incongruity regarding the disclosure and communication of risks to people who may want to buy, sell, own, or rent property on or near a contaminated site. Specifically, the EPA, pursuant to a federal statute, requires that owners or lessors make certain disclosures regarding lead-based paint in a home; however, there is no analogous federal statute that requires owners or lessors to disclose whether a property is on or near a contaminated site. Without complete and up-to-date information available to prospective community members, potential purchasers or renters may not be aware of nearby contaminated site conditions and not be fully informed about what risks are present.

Site Examples of Nondisclosure Concerns

At the USS Lead site, community members expressed particular concern that prospective purchasers or renters did not receive notice that certain properties of interest were on or near the respective contaminated sites.

At the Davis Chevrolet site, tribal leaders struggled to sell their property without "comfort letters," which are letters the EPA regions use when responding to interested parties who may want to acquire contaminated, potentially contaminated, and formerly contaminated properties. The "comfort" comes from hearing directly from the Agency about its knowledge of the property based on information known or provided to EPA at the time of the letter. In August 2019, the EPA issued updated guidance on when an EPA regional office may issue comfort letters to parties interested in acquiring impacted property for reuse and redevelopment. These letters communicate key information that the EPA has about a property's conditions, its cleanup status, and other details to try to address concerns and facilitate a more informed decision regarding the purchase, lease, or redevelopment of the property.

EPA Does Not Provide Complete Information on Certain Chemicals

The EPA's risk communication is also limited by incomplete national and site-specific action on emerging contaminants, such as PFAS and—to a lesser extent—1,4 dioxane.

For example, although the EPA has acted to address the dangers of PFAS and some states have taken steps to develop maximum contaminant levels for PFAS, the Agency does not always highlight the most recent information known about PFAS on its websites for sites contaminated with PFAS. For example, in 2016, the EPA found emerging contaminants, including PFAS, at the Coakley site. The Agency subsequently issued a November 2016 health advisory on exposure to certain types of PFAS in drinking water but did not revise the Coakley site website to include information on the health advisory. Without complete communication about contaminants, community members may not know how to manage their risks. Not until 2021 did the EPA update the Coakley site website to include information about PFAS.

Conclusions

The EPA needs to improve its risk communication efforts and deliver accurate, timely risk messages that are appropriate for the affected communities. While each site and each community are unique, OLEM

should establish key risk communication internal controls, including developing standard guidance, policies, and procedures to achieve management's stated goals of timely and effective risk communication. Strengthening the effectiveness of the EPA's risk communication at contaminated sites nationwide can help nearby communities to better understand their risks, thereby enabling community members to manage their risks of exposure to harmful contaminants.

Recommendations

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

1. Establish and implement internal controls to achieve nationally consistent risk communication to improve the impacted public's awareness and understanding of risks at contaminated sites. Consistent across all Office of Land and Emergency Management programs and regional offices, such internal controls should:

    a. Define relevant timelines for communications.
    b. Identify who should be notified of sampling results.
    c. Use and promote existing best risk communication practices, such as community advisory groups, community involvement coordinators, cumulative risk assessments, and assessments of environmental justice concerns.
    d. Determine how to communicate risks for emerging contaminants, such as per- and polyfluoroalkyl substances.
    e. Be consistent with the EPA's *Seven Cardinal Rules of Risk Communication.*

2. Establish and implement internal controls for the Office of Land and Emergency Management to conduct periodic evaluations of the risk communication efforts and outreach at Office of Land and Emergency Management–led sites. Periodically summarize Office of Land and Emergency Management programwide risk communication evaluation results to share across the Office of Land and Emergency Management programs and with EPA regions. Use these risk communication evaluation results when warranted to modify the Office of Land and Emergency Management programwide risk communication strategy, as appropriate.

3. Establish and implement internal controls for the Office of Land and Emergency Management to provide community members, when sampling results or other indicators show that they are or may be exposed to environmental health hazards, with:

    a. Information that allows them to manage their risks.
    b. Resources to contact to address the health impacts of the exposure.

Agency Response and OIG Assessment

The Agency responded to our draft report on June 17, 2021. In subsequent communications with the OIG, the EPA provided revised corrective actions for Recommendation 1, as detailed within the Agency's response, which we include in Appendix C. All recommendations are resolved with corrective actions pending. The EPA also provided technical comments, and the OIG modified the report as appropriate to address these comments.

Status of Recommendations

RECOMMENDATIONS

Rec. No.	Page No.	Subject	Status[1]	Action Official	Planned Completion Date
1	14	Establish and implement internal controls to achieve nationally consistent risk communication to improve the impacted public's awareness and understanding of risks at contaminated sites. Consistent across all Office of Land and Emergency Management programs and regional offices, such internal controls should: a. Define relevant timelines for communications. b. Identify who should be notified of sampling results. c. Use and promote existing best risk communication practices, such as community advisory groups, community involvement coordinators, cumulative risk assessments, and assessments of environmental justice concerns. d. Determine how to communicate risks for emerging contaminants, such as per- and polyfluoroalkyl substances. e. Be consistent with the EPA's *Seven Cardinal Rules of Risk Communication*.	R	Assistant Administrator for Land and Emergency Management	9/30/22
2	14	Establish and implement internal controls for the Office of Land and Emergency Management to conduct periodic evaluations of the risk communication efforts and outreach at Office of Land and Emergency Management–led sites. Periodically summarize Office of Land and Emergency Management programwide risk communication evaluation results to share across the Office of Land and Emergency Management programs and with EPA regions. Use these risk communication evaluation results when warranted to modify the Office of Land and Emergency Management programwide risk communication strategy, as appropriate.	R	Assistant Administrator for Land and Emergency Management	9/30/22
3	14	Establish and implement internal controls for the Office of Land and Emergency Management to provide community members, when sampling results or other indicators show that they are or may be exposed to environmental health hazards, with: a. Information that allows them to manage their risks. b. Resources to contact to address the health impacts of the exposure.	R	Assistant Administrator for Land and Emergency Management	9/30/22

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

Appendix A

Primary Contaminants and Their Health Impacts

Arsenic: At high levels, inorganic arsenic can cause death. Exposure to lower levels for a long time can cause a discoloration of the skin and the appearance of small corns or warts.

Benzene: Breathing benzene can cause drowsiness, dizziness, and unconsciousness. Long-term exposure affects bone marrow and can cause anemia and leukemia.

Chromium: At high levels, chromium can damage the nose and cause cancer. Ingesting at high levels may result in anemia or damage to the stomach or intestines.

Lead: Long-term exposure can result in decreased learning, memory, and attention, as well as weakness in fingers, wrists, or ankles. Exposure can cause anemia and damage to kidneys. It can also cause increases in blood pressure, particularly in middle-aged and older individuals. Exposure to high levels can severely damage the brain and kidneys and can cause death. In pregnant women, exposure to high levels of lead may cause miscarriage. High-level exposure in men can damage reproductive organs.

Methyl tert-butyl ether (MTBE): Drinking or breathing may cause nausea, nose and throat irritation, and nervous system effects.

Naphthalene: Exposure to a large amount may damage or destroy red blood cells.

Per- and polyfluoroalkyl substances (PFAS): High levels of certain PFAS may lead to the following: increased cholesterol levels, changes in liver enzymes, small decreases in infant birth weights, decreased vaccine response in children, increased risk of high blood pressure or preeclampsia in pregnant women, and increased risk of kidney or testicular cancer.

Phenol: Skin exposure to high amounts can produce skin burns, liver damage, dark urine, irregular heartbeat, and even death. Ingestion of concentrated phenol can produce internal burns.

Polycyclic aromatic hydrocarbons (PAHs): Some people who have breathed or touched mixtures of polycyclic aromatic hydrocarbons and other chemicals for long periods of time have developed cancer.

Tetrachloroethylene (PCE): Exposure to very high concentrations may cause dizziness, drowsiness, headaches, incoordination, unconsciousness, and even death.

Trichloroethylene (TCE): Exposure to very high concentrations may cause dizziness, headaches, sleepiness, nerve damage, skin rashes, and even death.

1,4-dioxane: Exposure to high levels in the air can result in nasal cavity, liver, and kidney damage. Ingestion or dermal contact with high levels can result in liver and kidney damage.

Appendix B

Prior OIG Reports

OIG Report No. 11-P-0430, *An Overall Strategy Can Improve Communication Efforts at Asbestos Superfund Site in Libby, Montana,* August 3, 2011

This audit found that Region 8 did not have an overall communication strategy to guide, coordinate, and evaluate its communication efforts at the Libby Asbestos Superfund site. Despite extensive communication efforts that exceeded minimum Superfund requirements, Region 8 had not fully satisfied community concerns about health risks or effectively communicated the limitations of its risk assessment. The audit also found that some Region 8 outreach products may have been difficult for community members to understand. The OIG recommended that the Region 8 regional administrator (1) ensure that Libby outreach products are readable for a general audience and (2) revise the Libby community engagement plan by adding key messages to address specific public concerns and site activities, timelines for community involvement activities and outreach products, measures for successful communication, and mechanisms for identifying community concerns and collecting feedback. The OIG also recommended that the EPA implement a process for ongoing evaluation of Region 8's communication efforts. Per the EPA's audit tracking system, all recommendations were completed as of June 30, 2016.

OIG Report No. 17-P-0174, *EPA Needs to Provide Leadership and Better Guidance to Improve Fish Advisory Risk Communications*, April 12, 2017

This audit found that, without health warnings, some subsistence farmers, tribes, sport fishers, and other groups consume large amounts of contaminated fish. Further, it found that although most states and some tribes have fish advisories in place, the information is often confusing, complex, and not effectively reaching segments of the population. Moreover, the report found that although the EPA's risk communication guidance recommends evaluations of fish advisories, less than half of states and no tribes had evaluated the effectiveness of their fish advisories. Of the four recommendations issued in this report, three involved risk communication efforts. Specifically, the OIG recommended that the EPA's Office of Water (1) provide updated guidance to states and tribes on risk communication methods for fish advisories, especially for high-risk groups; (2) work with states and tribes to develop best practices to evaluate the effectiveness of fish advisories; and (3) develop and implement methods to ensure tribal members receive current fish advisory information. Per the EPA's audit tracking system, all recommendations were completed as of December 16, 2020.

OIG Report No. 19-N-0217, *Management Alert: Certain Risk Communication Information for Community Not Up to Date for Amphenol/Franklin Power Products Site in Franklin, Indiana*, June 27, 2019

This management alert identified that the *Cleanups in My Community* public website was not depicting the most up-to-date risk information for the Amphenol site. The OIG recommended that the Region 5 regional administrator update (and keep current) the website and any other relevant websites. The OIG also recommended that the assistant administrator for Land and Emergency Management remind all regions to verify that the status of human health and groundwater migration milestones is accurate and up-to-date on the EPA's websites. Per the EPA's audit tracking system, all recommendations were completed as of October 7, 2019.

Report No. 19-P-0318, *EPA Must Improve Oversight of Notice to the Public on Drinking Water Risks to Better Protect Human Health*, September 25, 2019

This report identified that without reliable information about drinking water, consumers cannot make informed health decisions, and the EPA cannot provide effective oversight. The audit found that some primacy agencies—those responsible for implementing drinking water programs—do not consistently record violations, nor do they track the need for and issuance of public notices. Not all primacy agencies know whether public water systems under their supervision appropriately notify consumers about drinking water problems. Further, the EPA does not have complete and nationally consistent information about public water systems' compliance with public notice requirements because primacy agencies do not use consistent methods to identify problems with public notice, nor do they record violations in the national drinking water database. Primacy agencies lack accurate guidance on their oversight responsibilities, and public water systems lack guidance about current and relevant tools to provide effective public notices, thereby possibly missing opportunities to efficiently inform consumers about drinking water problems. The OIG made nine total recommendations to the assistant administrator for Water, the assistant administrator for Enforcement and Compliance Assurance, and the deputy administrator, including that the EPA require primacy agencies to comply with oversight requirements related to public notice and to follow data reporting requirements. The OIG also recommended that the Agency update public notice guidance, define the acceptable methods and conditions under which notices can be delivered electronically, and improve public notice violation information in the national drinking water database. As of December 2020, all recommendations are now considered resolved and all corrective actions are planned for completion before or on September 30, 2022.

Report No. 20-N-0030, *Management Alert: Unapproved Use of Slag at Anaconda Co. Smelter Superfund Site*, November 18, 2019

This management alert conveyed concerns and recommendations related to the unapproved use of slag at the Anaconda site. We learned that bags of slag were being sold or offered as souvenirs. The alert stated that the EPA does not approve of this use of slag because it poses a health risk to consumers, who might be directly exposed to the contaminants in the slag. We recommended that Region 8 implement controls to stop this use of slag, notify those individuals involved that using slag for souvenirs is not approved, and inform the public of the health risks. As of August 2021, according to Agency management, all recommendations have been completed.

OIG Report No. 20-N-0128, *Management Alert: Prompt Action Needed to Inform Residents Living Near Ethylene Oxide-Emitting Facilities About Health Concerns and Actions to Address Those Concerns,* March 31, 2020

This management alert identified that while the EPA or state personnel, or both, have met with residents living near nine of the 25 high-priority ethylene oxide-emitting facilities, communities near 16 facilities have yet to be afforded public meetings or other direct outreach to learn about the health risks and actions being taken to address those risks. The OIG did not identify any specific statutory, regulatory, or policy requirements for the EPA to provide the public additional information regarding its preliminary determination that certain ethylene oxide-emitting facilities may present health risks to surrounding communities. The OIG recommended that the Agency provide residents in all communities near the 25 high-priority ethylene oxide-emitting facilities with a forum for an interactive exchange of information with EPA or state personnel regarding health concerns related to exposure to ethylene oxide. Per the EPA's audit tracking system, all recommendations were completed as of January 4, 2021.

Agency Response to Draft Report

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

June 17, 2021

OFFICE OF
LAND AND EMERGENCY
MANAGEMENT

MEMORANDUM

SUBJECT: Response to Office of Inspector General Draft Report: "EPA's Office of Land and Emergency Management Lacked a Nationally Consistent Strategy for Communicating Health Risks at Contaminated Sites" Project No. OA&E-FY19-0031

FROM: Barry N. Breen
Acting Assistant Administrator

TO: Sean W. O'Donnell
Inspector General
Office of Inspector General

Thank you for the opportunity to respond to the issues and recommendations in the subject report. The following is a summary of the Office of Land and Emergency Management's (OLEM) overall position, along with its position on the report recommendations.

AGENCY'S OVERALL POSITION

OLEM agrees in general with the report recommendations and has provided high-level corrective actions and estimated completion dates. However, OLEM and EPA regions have identified significant technical comments and suggested revisions to the report that should be addressed to more accurately reflect OLEM programs' risk communication processes and efforts, the different roles and authorities that OLEM programs have for risk communication, and the significant role that states and other federal agencies have at many contaminated sites.

Risk communication goes to the heart of EPA's mission of protecting human health and the environment. The Agency is committed to ensuring that it carries out effective risk communication by sharing meaningful, understandable, and actionable information on human health and environmental risks with communities affected by contaminated sites.

OLEM programs consistently seek to provide guidance and support to EPA regions to develop and implement risk communication strategies and plans at contaminated sites. OLEM also works with states and other federal agencies, who often are the lead for cleanup at RCRA Corrective Action sites and federal facilities, to provide guidance for effective risk communication.

OLEM is recognized as an Agency leader in designing and implementing effective risk communication guidance, tools, and training, and we strive to continually improve our risk communications efforts. OLEM agrees with some of the Office of Inspector General's (OIG) observations in the draft report, especially the following:

- there is a need for approved messaging and information regarding known and emerging contaminants to help promote consistent communication across the regions.
- site-specific webpages and communications materials need to include clear, upfront risk communication messages and information that affected residents can use to protect themselves and get support to address health risks.
- there is a need for more Community Involvement Coordinators (CICs).

Over the past two years, EPA has made significant progress to strengthen the quality and consistency of our risk communication. This work will be continued with an additional focus on the Biden Administration's priorities of environmental justice and climate change. To make progress on these priorities, OLEM is developing an Environmental Justice Action Plan that will include several actions to improve risk communication at contaminated sites. Improving risk communication is essential to making progress on reducing risks related to climate change and for improving outcomes in communities experiencing environmental justice concerns. OLEM views the OIG's recommendations as an opportunity to improve our risk communication, outreach, and engagement pertaining to contaminated sites generally, but especially as we seek to address environmental injustice and climate related risks.

OLEM is also working with the Office of Public Affairs (OPA) and EPA's Senior Risk Communication Advisor to use EPA's new SALT (**S**trategy, **A**ction, **L**earning and **T**ools) Framework to provide a research-based approach and best practices for communicating our work to the American people. OLEM is also using the Agency's new risk communication training program to train staff in Headquarters and the regions to use scientifically grounded principles of risk communication and the SALT framework when talking to communities about risk. Additionally, OLEM is in process of incorporating new Agency risk communication tools and training platforms into OLEM program toolkits and training curriculum.

Regarding the OIG recommendations, OLEM agrees to 1) clarify best practices for program-specific risk communications processes, including OLEM's expectation for processes to be consistent with scientifically grounded principles of risk communication 2) clarify and promote existing program tools, training and guidance, 3) incorporate principles of the new Agency-wide SALT Framework, tools, and training to address Administration priorities. OLEM also agrees to develop a plan to periodically evaluate OLEM program risk communication efforts and outreach in OLEM programs. Lessons learned will be summarized and shared across OLEM programs and EPA regions. OLEM also agrees to work with EPA regions, and other EPA programs and federal agencies to share approaches and best practices for providing community members, that

are or may be exposed to environmental health hazards, with clear, timely information to manage their risks; and resources for them to contact to address the health impacts of the exposure.

OLEM requests that the OIG consider the attached technical comments and revisions (Appendices A and B). It is very important that the report be revised to reflect the complexity of the issues managed at our sites and the programmatic differences that drive our approaches under distinct programs. It is also important to recognize that every community is unique. Therefore, EPA regions must have the flexibility to tailor communications work to meet the needs of diverse communities. OLEM programs also have different authorities, roles, and regulations for conducting site cleanups. OLEM-wide guidelines for conducting risk communication must recognize these differences – while at the same time emphasizing the base principles, best practices, tools, and training that should be considered by all OLEM programs and EPA regions when planning and conducting risk communication.

In summary, OLEM understands that the best risk communication requires a consistent strategic approach which takes an audience first perspective and seeks to build trust over-time. This work is not easy and requires dedicated resources, but it is essential to meeting our mission and addressing the environmental health needs of the American public. We look forward to implementing these efforts to improve risk communication within OLEM's programs.

RESPONSE TO REPORT RECOMMENDATIONS

OLEM indicates acceptance of the OIG recommendations, as qualified, in the table below.

Agreements

No.	Recommendation	High level Intended Corrective Action(s)	Estimated Completion by Quarter and FY
1.	Establish and implement internal controls to achieve Office of Land and Emergency Management–wide, nationally consistent risk communication to improve the impacted public's awareness and understanding of risks at contaminated sites. Consistent across all Office of Land and Emergency Management programs and regional offices, such internal controls should: **a.** Define relevant timelines for communications. **b.** Identify who should be notified of sampling results.	OLEM will 1) clarify best practices for program-specific risk communications processes, including OLEM's expectation for processes to be consistent with scientifically grounded principles of risk communication 2) clarify and promote existing program tools, training and guidance, 3) incorporate principles of the new Agency-wide SALT Framework, tools, and training to address Administration priorities.	4th Quarter, FY 2022

No.	Recommendation	High level Intended Corrective Action(s)	Estimated Completion by Quarter and FY
	c. Use and promote existing best risk communication practices, such as community advisory groups, community involvement coordinators, cumulative risk assessments, and assessments of environmental justice concerns. **d.** Determine how to communicate risks for emerging contaminants, such as per- and polyfluoroalkyl substances. **e.** Be consistent with the EPA's *Seven Cardinal Rules of Risk Communication*.		
OIG Response: After additional discussion with the OIG regarding Recommendation 1, the EPA provided the following revised planned corrective action, which the OIG agreed meets the intent of the recommendation. OLEM wanted to recognize differences that may occur between programs, because of who implements them, as it completes its corrective action. OLEM said that it will: 1) clarify best practices for program-specific risk communications processes, including OLEM's expectation for processes to be consistent with scientifically grounded principles of risk communication 2) clarify and promote existing program tools, training and guidance, 3) incorporate principles of the new Agency-wide SALT Framework, tools, and training to address Administration priorities. These efforts will recognize 1) the differences between OLEM programs' various roles and authorities, 2) the role of states, tribes and local governments, and 3) the variability of circumstances at contaminated sites and the importance of providing risk communication that meets the specific needs and interests of individual communities and residents at each site. In this context OLEM will: a. Define relevant timelines for communications. b. Identify who should be notified of sampling results. c. Use and promote existing best risk communication practices, such as community advisory groups, community involvement coordinators, cumulative risk assessments, and assessments of environmental justice concerns. d. Determine how to communicate risks for emerging contaminants, such as per- and polyfluoroalkyl substances. e. Be consistent with the EPA's Seven Cardinal Rules of Risk Communication.		
2.	Establish and implement internal controls for the Office of Land and Emergency Management to conduct periodic evaluations of the risk communication efforts and outreach at Office of Land and	OLEM will develop a plan to periodically evaluate risk communication efforts and outreach in OLEM programs. Lessons learned will be summarized and shared across	4th quarter, FY 2022

No.	Recommendation	High level Intended Corrective Action(s)	Estimated Completion by Quarter and FY
	Emergency Management–led sites. Periodically summarize Office of Land and Emergency Management–wide risk communication evaluation results to share across the Office of Land and Emergency Management programs and with EPA regions. Use these risk communication evaluation results when warranted to modify the Office of Land and Emergency Management–wide risk communication strategy, as appropriate.	OLEM programs and EPA regions.	
3.	Establish and implement internal controls for the Office of Land and Emergency Management to provide community members, when sampling results or other indicators show that they are or may be exposed to environmental health hazards, with: a. Information that allows them to manage their risks. b. Resources to contact to address the health impacts of the exposure.	OLEM will work with EPA regions, and other EPA programs and federal agencies to share approaches develop guidelines and best practices for providing community members that are or may be exposed to environmental health hazards with clear, timely information to manage their risks; and resources for them to contact to address the health impacts of the exposure.	4th Quarter, FY 2022

CONTACT INFORMATION

If you have any questions regarding this response, please have your staff contact Kecia Thornton, the OLEM Audit liaison, at thornton.kecia@epa.gov or 202-566-1913.

Attachment: Technical Comments

cc: Barry Breen
Carlton Waterhouse
Charles Sheehan, OIG
Christina Lovingood, OIG
OLEM OD Deputies
Stephanie Lamster, LRC, Region 2
Dora Ann Johnson, LRC, Region 4
Regions 1 – 10 Audit coordinators

Appendix D

Distribution

The Administrator
Deputy Administrator
Chief of Staff, Office of the Administrator
Deputy Chief of Staff, Office of the Administrator
Assistant Administrator for Land and Emergency Management
Regional Administrators, Regions 1–10
Agency Follow-Up Official (the CFO)
Agency Follow-Up Coordinator
General Counsel
Associate Administrator for Congressional and Intergovernmental Relations
Associate Administrator for Public Affairs
Principal Deputy Assistant Administrator for Land and Emergency Management
Deputy Assistant Administrator for Land and Emergency Management
Deputy Regional Administrators, Regions 1–10
Director, Office of Continuous Improvement, Office of the Chief Financial Officer
Director, Office of Communications, Partnerships, and Analysis, Office of Land and Emergency Management
Deputy Director, Office of Communications, Partnerships and Analysis, Office of Land and Emergency Management
Director, Office of Regional Operations
Audit Follow-Up Coordinator, Office of the Administrator
Audit Follow-Up Coordinator, Office of Land and Emergency Management
Audit Follow-Up Coordinator, Office of General Counsel
Audit Follow-Up Coordinators, Regions 1–10