



U.S. ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF INSPECTOR GENERAL

Cleaning Up Communities

EPA Is Documenting How It Addresses Time-Critical Public Health Risks Under Its Superfund Authority

Report No. 16-P-0059

December 9, 2015



- Time-critical removal responses

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Abbreviations

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
EPA U.S. Environmental Protection Agency
OIG Office of Inspector General

Cover photo: The map represents time-critical removal actions, not including the incidents of national significance, in the contiguous United States that were completed between 2010 and 2014. (EPA-generated map)

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At a Glance

Why We Did This Review

We conducted this review to determine whether the U.S. Environmental Protection Agency (EPA) can provide documentation that imminent and substantial endangerment threats to public health at Superfund time-critical removal action sites have been addressed. The EPA's Superfund removal program responds to immediate threats to public health and the environment from releases of hazardous substances, pollutants or contaminants. For example, in 2013, the EPA removed approximately 1,400 cubic yards of lead-contaminated soil and rock from 10 residential yards in Missouri due to immediate public health threats. Time-critical removal actions must be initiated in less than 6 months. EPA officials estimate that 300 Superfund removals are conducted every year, with an approximate \$100 million budget.

This report addresses the following EPA goal or cross-agency strategy:

- *Cleaning up communities and advancing sustainable development.*

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EPA Is Documenting How It Addresses Time-Critical Public Health Risks Under Its Superfund Authority

What We Found

We found that the EPA can provide documentation that imminent and substantial endangerment threats to public health at Superfund time-critical removal sites have been addressed. In a detailed review of three sites located in three separate EPA regions, we found that site removal records contained documentation to support EPA regions' conclusions that immediate threats to public health and the environment from releases of hazardous substances were addressed. Further, we surveyed all 10 EPA regions and found that regions were consistent in citing national guidance and regulations requiring documentation of time-critical removal actions. This provides added assurance that the practices in the three regions we tested are followed throughout EPA regions.

Time-critical removal actions are vital to public health protection. EPA documentation of work conducted at time-critical removal action sites provides assurance that imminent human and environmental health issues are addressed. Therefore, we make no recommendations.

For more information on hazardous waste cleanups near you, visit the EPA's [Cleanups in My Community](#) webpage.



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

THE INSPECTOR GENERAL

December 9, 2015

MEMORANDUM

SUBJECT: EPA Is Documenting How It Addresses Time-Critical Public Health Risks
Under Its Superfund Authority
Report No. 16-P-0059

FROM: Arthur A. Elkins Jr.

A handwritten signature in black ink, appearing to read "Arthur A. Elkins Jr.", is written over the printed name.

TO: Mathy Stanislaus, Assistant Administrator
Office of Solid Waste and Emergency Response

This is our report on the subject evaluation conducted by the Office of Inspector General (OIG) of the U.S. Environmental Protection Agency.

Because this report contains no recommendations, you are not required to respond to this report. However, if you submit a response, it will be posted on the OIG's public 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.

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Purpose

The purpose of this evaluation was to determine whether the U.S. Environmental Protection Agency (EPA) can provide documentation that imminent and substantial endangerment threats to public health at Superfund time-critical removal sites have been addressed.

Background

The Superfund removal program provides responses to immediate threats to public health and the environment from releases of hazardous substances, pollutants or contaminants.¹ Superfund removals fall into three categories:

- Emergencies (action required within hours).
- Time-critical (removal action must be initiated within 6 months).
- Non-time-critical (planning period of more than 6 months occurs before removal actions begin).

In response to an Office of Inspector General (OIG) hotline complaint, we had issued a report in 2013² that found it was unclear whether the EPA had properly cleaned up lead-contaminated soil during a time-critical removal action from certain residential properties in Cherryvale, Kansas, because some EPA records were missing or incomplete. As a result of the public health concerns raised during this OIG hotline review, we performed this review.

Responsible Offices

EPA regional offices are responsible for conducting all Superfund removal actions. According to officials from the EPA Office of Solid Waste and Emergency Response's Office of Emergency Management, it provides funding to the EPA's regional offices for management of removals and, where appropriate, provides technical assistance to the regions.

Scope and Methodology

We performed our work from March to October 2015. 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 objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

¹ Follow-up long-term response actions to address ongoing risks at sites are addressed under the Superfund Remedial Action authority.

² EPA OIG Report No. [13-P-0207](#), *Review of Hotline Complaint Regarding Residential Soil Contamination in Cherryvale, Kansas*, issued March 28, 2013.

We reviewed a statute, regulations and guidance related to time-critical removal actions, including: the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); the National Oil and Hazardous Substances Pollution Contingency Plan; Superfund Removal Guidance for Preparing Action Memoranda; Revised Guidance on Compiling Administrative Records for CERCLA Response Actions; and Guidance for Preparing PolReps [pollution reports] and SitReps [situation reports].

We selected three time-critical removal sites from the EPA's electronic data management system for removal actions, called the Superfund Enterprise Management System. We found some inconsistencies and incomplete data in the system. However, we believe the data to be of sufficient quality for the purpose of selecting sites for a detailed document review. We selected sites based on the following criteria:

- Time-critical removal actions funded and led by the EPA that were completed between 2010 and 2014.
- Sites with large amounts³ of contaminants⁴ frequently found at removal sites, including contaminants with high toxicity and potential for human exposure.
- Sites located in more than one EPA region.
- Time-critical removal actions that took varied amounts of time to complete.
- Sites located near private residences.
- Sites with soil contamination.

The three sites selected as case studies were:

- Parker Street Waste, New Bedford, Massachusetts (Region 1).
- Washington County Lead District – Pea Ridge, Washington County, Missouri (Region 7).
- Murray Laundry, Salt Lake City, Utah (Region 8).

We conducted a review of the three sites to determine whether the EPA could provide documentation that identified whether imminent and substantial endangerment threats to public health had been addressed. We did not verify the accuracy of the EPA documents we reviewed.

³ Amount of contaminant was determined by Superfund Enterprise Management System data and is measured in tons, cubic yards, gallons, etc. For each contaminant, the three sites with some of the largest entered amounts of contaminant were selected.

⁴ We defined “contamination” from a list created by combining the Agency for Toxic Substances and Disease Registry’s Priority List of Hazardous Substances from 2013 (most recent) and the EPA’s list of Top 10 Contaminants. The list resulted in a total of 15 contaminants.

We interviewed Office of Emergency Management management responsible for the time-critical removal program. To clarify our review of the documentation for sites in Regions 1 and 7, we sent questions to responsible managers in Regions 1 and 7. We sent a survey to each of the 10 EPA regions to determine what policies, procedures or guidance were followed to document removal actions and support EPA conclusions that a site was properly cleaned up and protective of human health and the environment.

On October 8, 2015, we issued a discussion document to the agency and received one editorial comment from the Assistant Administrator for the Office of Solid Waste and Emergency Response on October 26, 2015. We addressed the editorial comment in this report.

Results of Evaluation

The three site case studies and survey responses from all EPA regions showed that the EPA has policies, procedures and guidance in place to document its conclusions that removal actions were completed and that imminent and substantial endangerment threats were addressed.

Three Site Case Studies

We reviewed three sites as case studies to verify that documentation was available to support the removal activities and support EPA conclusions that imminent and substantial endangerment threats to public health at the time-critical removal sites were addressed.

Washington County Lead District – Pea Ridge Site – Region 7

The site, located in a residential area of Washington County, Missouri, encompassed approximately 215 square miles. Site documentation showed that 569 properties were sampled, and 13 of the private residences had soil contamination that required removal actions. EPA Region 7 conducted cleanup actions at 12 of the 13 properties (one resident did not allow the EPA access). In 2013, the EPA removed approximately 1,400 cubic yards of lead-contaminated soil and rock from 10 residential yards at the site due to immediate public health threats. The EPA also identified 22 homes that had water contamination at levels requiring a removal action. EPA Region 7 installed drinking water filters at three homes, while two other properties are receiving⁵ bottled water from the EPA. The remaining properties declined EPA assistance or installed their own filter. Region 7 was able to provide documentation that imminent and substantial endangerment threats to public health had been addressed.

Soil and groundwater at this Washington County site were contaminated with arsenic, barium, cadmium and lead.

⁵ The EPA informed us in July 2015 that two properties were receiving bottled water at that time.

Parker Street Waste Site – Region 1

The site is approximately 122 acres and located in an urban area of New Bedford, Massachusetts. The site includes a former city-owned landfill, public housing, public schools, private multi-housing units, single family homes, and recreational ball fields. A total of 84 residential properties were investigated and 44 of those properties required the time-critical removal action. Site documentation supported that Region 1 performed cleanup actions and it could document its conclusion that imminent and substantial endangerment threats to public health had been addressed.

Soil at this New Bedford site was contaminated with polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons and heavy metals.



Removal action work being conducted at Parker Street Waste Site. (EPA website)

Murray Laundry Site – Region 8

The Murray Laundry site is located in Salt Lake City, Utah. The site was a large-scale, industrial laundry facility that operated for approximately 50 years and was abandoned in 1977. The site is located in an area of commercial and industrial use, with small residences interspersed between the commercial properties. The total area of the site is approximately 3-and-a-half acres. A private environmental assessment conducted in 1999 discovered a 265-gallon underground storage tank that was once used to store perchloroethylene, and appeared to have been leaking. The time-critical removal action was to address contaminated soils that were left behind after the commercial laundry facility was abandoned.

Soil at this Salt Lake City site was contaminated with perchloroethylene, trichloroethylene, chlorinated solvents, lead and arsenic.

As part of the site assessment, soil samples were taken and results showed contamination that required cleanup actions. The top 2 feet of soil were removed. When clean soil was encountered, cleanup activities were halted. The results of confirmation samples taken post-removal showed the cleanup

met standards. Region 8 was able to provide documentation that imminent and substantial endangerment threats to public health had been addressed.



Confirmation soil sampling around outside of removal area at Murray Laundry site. (EPA website)

Regional Survey

We received responses from all 10 EPA regions describing both regional policies and procedures as well as national guidance requiring documentation of time-critical removal actions. Regions were consistent in citing the applicable national guidance and regulations being followed to require documentation of removal actions. Regions also cited region-specific guidance such as detailed standard operating guides and protocols, checklists and templates. The responses cited guidance on maintaining the Administrative Record, stating that it forms the basis for the selection of a particular response action and reflects the information the EPA has considered in connection with the cleanup decisions at the site. The Administrative Record usually accompanies the Action Memorandum, which is the decision-making document for the site. Regional managers responded that the site file is broader and includes all the records needed to document the site work.

Conclusion

A detailed review of the three Superfund removal site records showed that the regions documented that imminent and substantial endangerment threats to public health had been addressed. The EPA regional offices have policies, procedures and guidance in place to require documentation of the time-critical removal actions. The regions were consistent in citing the applicable regulations and national guidance as well as regional-specific guidance for facilitating adequate documentation. Because the agency was taking sufficient action, we make no recommendations.

Distribution

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