



OFFICE OF INSPECTOR GENERAL

Catalyst for Improving the Environment

Evaluation Report

Limited Investigation Led to Missed Contamination at Ringwood Superfund Site

Report No. 2007-P-00039

September 25, 2007



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Abbreviations:

Borough	Borough of Ringwood
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
EPA	U.S. Environmental Protection Agency
ERRD	Emergency and Remedial Response Division
Ford	Ford Motor Company
NCP	National Contingency Plan
NJDEP	New Jersey Department of Environmental Protection
NPL	National Priorities List
OIG	Office of Inspector General
OSWER	Office of Solid Waste and Emergency Response
RPM	Remedial Project Manager
Site	Ringwood Mines/Landfill Superfund Site

Cover photo: Paint sludge deposit at the Site. (Photo taken by OIG, August 2006)



At a Glance

Catalyst for Improving the Environment

Why We Did This Review

Members of Congress requested that we examine several issues about the cleanup decisions, oversight, and actions at the Ringwood Mines/Landfill Superfund site (Site) located in Ringwood, New Jersey. This report addresses questions raised about cleaning up the Site and the U.S. Environmental Protection Agency's (EPA's) oversight of that cleanup.

Background

In 1983, due to concerns about groundwater and surface water contamination, EPA listed the Site on the Superfund National Priorities List (NPL). In 1994, after addressing known concerns, EPA deleted it from the NPL. However, several more cleanup actions have occurred at the Site since, prompting EPA for the first time in Superfund's history to restore a site to the NPL.

For further information, contact our Office of Congressional and Public Liaison at (202) 566-2391.

To view the full report, click on the following link:
www.epa.gov/oig/reports/2007/20070925-2007-P-00039.pdf

Limited Investigation Led to Missed Contamination at Ringwood Superfund Site

What We Found

EPA's oversight of the Ford Motor Company's cleanup at the Site met many requirements. Based on the initial investigation, EPA selected a remedy that addressed groundwater and surface water concerns at the Site. EPA ensured implementation of the remedy and removal of identified paint sludge, deleted the Site from the NPL, and conducted the 5-year reviews. However, EPA did not comply with the community notification requirements when conducting the 5-year reviews.

Residents continued to discover paint sludge at the Site after EPA deleted it from the NPL in 1994. These discoveries were because EPA did not ensure that Ford's initial Site investigation was comprehensive. During the initial investigation, EPA could have ensured that Ford conducted a more comprehensive survey of the 500-acre Site and made better use of aerial photographs. In addition, EPA itself could have conducted a more thorough search for records involving waste disposal activities at the Site by enforcing disclosure requirements on Ford. Had EPA taken or enforced these actions, it may have produced information that supported a more comprehensive site investigation or identified additional paint sludge. Under EPA orders, Ford is conducting an ongoing, comprehensive Site investigation. If done properly, it should address concerns about the initial Site investigation.

EPA Region 2 managers were not regularly documenting ongoing Site visits and discussions with State managers. EPA's Records Management Manual requires documentation of such activities in certain circumstances.

What We Recommend

We recommend that EPA Region 2 ensure that: 1) Ford has submitted all relevant information regarding the company's waste disposal activities at the Site; 2) the Ringwood community receives the required notification of the initiation and results of any future 5-year reviews at the Site; and 3) appropriate EPA staff receive written guidance defining their responsibilities for complying with EPA's records management policies when conducting conversations with State officials and during site visits. In its response to the draft report, the Region agreed with recommendations 1 and 2, but did not agree with recommendation 3, which we revised to account for the Region's comments.



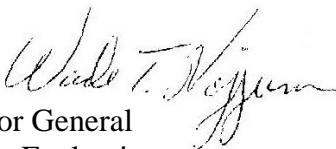
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
INSPECTOR GENERAL

September 25, 2007

MEMORANDUM

SUBJECT: Limited Investigation Led to Missed Contamination
at Ringwood Superfund Site
Report No. 2007-P-00039

FROM: Wade T. Najjum 
Assistant Inspector General
Office of Program Evaluation

TO: Alan J. Steinberg
Regional Administrator
Region 2

This is our report on the subject evaluation conducted by the Office of Inspector General (OIG) of the U.S. Environmental Protection Agency (EPA). This report contains findings that describe the problems the OIG has identified and corrective actions the OIG recommends. The OIG responded to the Agency's draft report comments by making changes to the report and providing responses to EPA, as appropriate. This report represents the opinion of the OIG and does not necessarily represent the final EPA position. Final determinations on matters in this report will be made by EPA managers in accordance with established resolution procedures.

The estimated cost of this report – calculated by multiplying the project's staff days by the applicable daily full cost billing rates in effect at the time – is \$544,626.

Action Required

In accordance with EPA Manual 2750, you are required to provide a written response to this report within 90 calendar days. Your response should include a corrective action plan for agreed upon actions, including milestone dates. Please email an electronic version of your response that complies with Section 508 of the Rehabilitation Act to Patrick Milligan at milligan.patrick@epa.gov. We have no objections to the further release of this report to the public. This report will be available at <http://www.epa.gov/oig>.

If you or your staff have any questions regarding this report, please contact Carolyn Copper, Director for Program Evaluation, Hazardous Waste Issues, at (202) 566-0829, or copper.carolyn@epa.gov; or Patrick Milligan, Project Manager, at (215) 814-2326, or milligan.patrick@epa.gov.

Limited Investigation Led to Missed Contamination
at Ringwood Superfund Site

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Purpose

This report addresses questions raised about the cleanup of the Ringwood Mines/Landfill Superfund site (Site) and the U.S Environmental Protection Agency's (EPA's) oversight of that cleanup. We performed this evaluation in response to a request from members of Congress. We addressed the following questions:

- What changes have occurred or what conditions did EPA identify that necessitate the restoration of the Site on the NPL? Why were these factors not previously identified or addressed as part of the initial remedial action?
- Did EPA select a remedy based on complete, thorough, and accurate data collection and analysis that would ensure protection of human health and the environment?
- Did EPA provide adequate and proper oversight of the remedial investigation, feasibility study, remedy selection process, and Site cleanup in accordance with applicable laws, regulations, policies, guidance, and past Agency practices?

Background

The 500-acre Site operated as iron mines, beginning in the early 1700s. Multiple parties disposed wastes at the Site since the 1960s. From 1967 until 1974, Ringwood Realty, a subsidiary of the Ford Motor Company (Ford), owned the Site. During this period, Ford disposed automobile manufacturing wastes, including car parts and paint sludge, on the ground, and in abandoned pits and mineshafts. In 1970, Ringwood Realty donated 290 acres in the southern portion of the Site to the Ringwood Solid Waste Management Authority (Agency of the Borough of Ringwood (Borough)), which began operating a permitted municipal landfill in 1972. Ford utilized the landfill for disposal of its wastes until 1974. The New Jersey Department of Environmental Protection (NJDEP) ordered the landfill closed in 1976 after confirming contamination leaching from the landfill into nearby surface water.

At the time of the initial Site investigation in 1984, the Site consisted of rugged forested areas and open areas overgrown with vegetation. There were also abandoned pits and mineshafts, an inactive landfill, open waste dumps, and about 50 private homes. Surface water and groundwater beneath the Site discharged into the Wanaque Reservoir, a drinking water source for approximately 65,000 people, located one-half mile from the waste disposal areas.

EPA placed the Site on the Superfund National Priorities List (NPL) in 1983. Test results in 1982 had indicated the detection of heavy metals in groundwater and surface water, and there were concerns with the Site's close proximity to the Wanaque Reservoir. EPA identified two liable parties responsible for contaminating the Site -- Ford and the Borough.

Between 1984 and 1988, under EPA and NJDEP oversight, Ford conducted the initial Site investigation and removed paint sludge identified during the investigation. In 1989, Ford implemented a long-term monitoring program as part of the “no action remedy” selected to address groundwater and surface water concerns at the Site. Through 1993, groundwater monitoring results showed that the detection of contaminants was sporadic and inconsistent. Results also showed that contamination was not migrating from the Site. Surface water results detected no contaminants above acceptable levels. On this basis, in agreement with the NJDEP, EPA deleted the Site from the NPL in 1994.

As required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EPA performed its first 5-year review of the Ringwood Site in 1998. The purpose of a 5-year review is to determine whether remedies are protecting, or will protect, human health and the environment. The first 5-year review concluded the Site was protective of human health and the environment. In 2003, EPA conducted a supplemental 5-year review and again declared the Site protective of human health and the environment, and recommended discontinuing the 5-year review process.

Between 1990 and 2004, Ford continued to remove new discoveries of paint sludge. Consequently, EPA issued an Administrative Order of Consent to Ford and a Unilateral Administrative Order to the Borough during the fall of 2005 for a supplemental Site investigation. Per the two orders, Ford and the Borough are required to coordinate their cleanup efforts at Ringwood. EPA required the supplemental investigation to determine the nature and extent of contamination at the Site. Identified by EPA as the performing party, Ford agreed to perform the investigation, including resurveying the Site, removing remaining surface paint sludge, removing additional paint sludge identified during the Site survey, and conducting groundwater and surface water monitoring. Since December 2004, Ford has removed over 24,000 tons of paint sludge and soil as part of the ongoing cleanup effort. These more recent cleanup actions have prompted EPA for the first time in Superfund’s history to restore a site to the NPL.

See Appendix A for a detailed timeline of events at Ringwood.

The OIG’s Office of Congressional and Public Liaison issued a separate report¹ on April 2, 2007, that addressed environmental justice concerns and community relations issues at the Site.

Scope and Methodology

We conducted our evaluation from June 2006 through July 2007 in accordance with generally accepted government auditing standards. We limited our review to compliance with those management controls related to the issues identified in the congressional request.

¹ OIG Report No. 2007-P-00016 titled *Environmental Justice Concerns and Communication Problems Complicated Cleaning Up Ringwood Mines/Landfill Site*.

At the time of the Site cleanup, EPA was in the early stages of implementing the Superfund program. Compared to the Superfund program today, a relatively small amount of policy and guidance was available to EPA as it conducted oversight of the Ringwood cleanup in the mid 1980s. We evaluated EPA's performance against the criteria applicable at the time, where criteria existed. We primarily relied on the applicable requirements stipulated in the legal cleanup agreements (i.e., Administrative Orders of Consent and Unilateral Administrative Orders).

Our review focused on whether EPA selected a remedy based on complete, thorough, and accurate data collection and analysis, and whether that remedy would ensure protection of human health and the environment. We also evaluated whether EPA provided proper oversight of the remedial investigation, feasibility study, remedy selection process, and Site cleanup in accordance with applicable laws, regulations, policies, guidance, and past Agency practices. We did not evaluate activities performed under the 2005 Administrative Orders issued to Ford and the Borough. However, we did evaluate these activities to determine differences in current investigative practices versus past actions.

To accomplish our objectives, we interviewed past and present EPA Region 2 and NJDEP managers involved with the Site. We reviewed EPA's Ringwood Superfund Site files and Administrative Record files, which included public files, enforcement files, legal files, and electronic files. We reviewed Site files that NJDEP maintained. We obtained specific records from Ford that could not be located in EPA's files. We also toured the Site to gain an understanding of the location, conditions, characteristics, and ongoing activities. Appendix B provides further details on our scope and methodology.

Limited Approach Impedes Discovering All Paint Sludge

Between 1990 and 2004, Ford performed four unplanned removals of paint sludge and other contaminated wastes at the Site. Ford conducted three of the removals after EPA deleted the Site from the NPL in 1994. This situation occurred because some aspects of the initial Site investigation were limited, which impeded early discovery of all possible paint sludge deposits at the Site. EPA could have required Ford to conduct a more comprehensive Site survey and ensured using available aerial photographs to identify potential paint sludge locations outside the originally scoped areas. EPA could have also conducted a more thorough search for records involving waste disposal activities at the Site by enforcing the disclosure requirements on Ford. Had EPA taken these actions, it may have produced information supporting a more comprehensive Site investigation or identified additional paint sludge deposits. Under EPA orders, Ford is conducting an ongoing, comprehensive Site investigation.

Figure 1: Exposed Paint Sludge



Source: EPA OIG Photo Taken August 2006

Site Survey Limited to Visible Paint Sludge in Designated Areas

In scoping the investigation work at the 500-acre Site in 1983, Ford identified three areas where it directed waste haulers to dump waste. Ford also identified a potential fourth area during its preliminary Site survey. Unlike the three known disposal areas, there were no records of dumping activities in this fourth area. However, Ford determined that because there were no signs of natural vegetation, it would investigate the area. EPA and Ford limited its search for waste, including visible paint sludge, to these four areas. This was due in part because of the size of the Site, the terrain, and its rugged and dense forested and vegetative areas. The initial Site investigation included a Site survey that was also limited to the four areas (1) to identify solid wastes (including paint sludge) observed on the surface (as well as shallow buried waste), and (2) to map other features (e.g., seeps, streams, ditches, etc.). An EPA manager stated that EPA did not anticipate dumping of paint sludge outside these areas, nor hidden paint sludge, because Ford owned the property and had established designated disposal areas.

EPA's early focus was primarily on whether wastes from the disposal areas were threatening human health through contaminated groundwater, surface water, and sediments. Early surveys alerted EPA to an "extremely large" potential for groundwater contamination at the Site. Early test results had detected the presence of heavy metals in both groundwater and surface water, which discharged into the Wanaque Reservoir.

Under the ongoing cleanup, EPA has ensured that Ford conducted a more comprehensive survey when compared to the initial Site survey. For example, Ford has conducted a walking survey of the Site to observe surface conditions and to identify paint sludge and drum remnants buried just beneath the visible surface. Had EPA and Ford used this technique during the initial Site investigation, it may have provided more information on the nature and extent of contamination at the Site, which could have helped EPA determine the proper scope of the investigation.

EPA Did Not Ensure Investigation Made Full Use of Aerial Photographs

EPA could have done more to discover paint sludge outside of the four identified areas of concern. The Agency could have ensured better use of the aerial photography analysis. Use of this tool could have identified at least one area, along Hope Mountain Road, that is part of ongoing removal efforts. In the ongoing investigation, Ford is extensively using aerial photography to help identify paint sludge locations.

In 1983, EPA's Environmental Photographic Interpretation Center issued a detailed analysis of aerial photographs to support the initial Site investigation. This analysis compared aerial photos of the Site taken between 1940 and 1983 to identify differences in the ground layout. The analysis helps EPA identify changes in terrain resulting from newly built roads, trails, and buildings. It also helps EPA find waste sites by identifying newly filled-in areas, and locations with ground scarring and debris.

The aerial photography analysis could have indicated buried paint sludge outside the four areas of concern. Specifically, the 1974 aerial photograph shows recently formed, large concentrations of debris piles scattered along Hope Mountain Road. This road was outside the original four areas identified in the initial Site investigation. The debris piles are located in or near areas currently targeted for paint sludge removal. EPA Site managers said they used the aerial photography analysis during the initial Site investigation to identify potential disposal areas but could “only speculate as to the investigation and elimination of other discrete areas identified in the photos.” EPA records showed that EPA and Ford did “walk up” Hope Mountain Road during the initial investigation, but no removals from Hope Mountain Road occurred under the initial removal activities.

EPA Did Not Require Ford to Conduct Further Search of Records

In May 1983, EPA sent Ford a CERCLA Section 104 (e) information request regarding Ford’s waste disposal activities at the Site. Ford’s response did identify the three areas where they directed waste haulers to dump waste. However, several aspects of the response should have prompted EPA to enforce, or independently conduct, a more thorough search for records involving Ford’s waste disposal activities at the Site. For example, Ford did not certify that the information it submitted was complete. Rather, Ford stated, “In the spirit of cooperation and to assist in expediting EPA’s investigation, Ford Motor Company has reviewed [our] files which have been located and are reasonably likely to contain information responsive to EPA’s request.” Specifically, Ford did not submit required information on the amount of each hazardous substance disposed of at Ringwood. EPA did not conduct any followup enforcement or general inquiries to Ford to find out where this information was or why Ford did not submit it.

Figure 2: Ongoing Cleanup Effort



Source: EPA OIG Photo Taken August 2006

Ford disclosed to EPA that it had poor performance issues with its waste hauler. Yet EPA did not follow up with Ford to determine whether this poor performance could have implications for the scope of the Site investigation. For example, EPA did not seek to determine whether the waste hauler’s poor performance involved haphazard or unauthorized dumping. Had EPA taken action to enforce Ford’s information disclosure requirements, or to conduct its own independent search for records, it may have produced information that supported a more comprehensive Site investigation. Then, in 2004, Ford disclosed additional information to EPA regarding its waste disposal activities due to “renewed interest” at the Site. Ford’s 2004 disclosure contained information not provided to EPA in 1983.

EPA Provided Oversight of Cleanup, But Did Not Notify Community of 5-Year Reviews

Based on the results of the initial investigation and the removal of identified paint sludge, EPA selected a “no further action remedy” with long-term monitoring that addressed groundwater and surface water concerns at the Site. The Agency based the remedy selection on complete, thorough, and accurate data collection and analysis of soil, groundwater, surface water, and sediment samples taken during the initial Site investigation.

EPA prepared the record of decision and explained its rationale for selecting the final remedy. EPA’s oversight ensured removing identified paint sludge and implementing the remedy. EPA followed the process for site deletion; however, EPA’s 5-year review failed to address community notification requirements.

EPA provided continued oversight throughout the initial Site investigation, feasibility study, and Site cleanup. EPA oversight included reviewing and approving of work products produced by Ford (through its environmental contractors). The requirements for work products and EPA oversight responsibilities were contained in Administrative Orders. EPA primarily used contractors to oversee Site activities. EPA made Site visits to provide direct oversight of Ford. While EPA had primary oversight responsibility for the cleanup, NJDEP took a secondary role.

From 1984 to 1988, Ford conducted the initial Site investigation to determine the nature and extent of contamination at the Site. Based on the results of the initial Site investigation, Ford concluded an overall lack of ground water contamination, but suggested that paint sludge might be leaching near shallow groundwater. In 1987, EPA required Ford to assess the risk associated with contamination at the Site. The assessment generally concluded that the Site posed a potential health concern. There was a risk of possible exposure to hazardous substances, including arsenic and lead. As required under Superfund, the Agency for Toxic Substances and Disease Registry independently conducted a human health assessment for the Site. The assessment included the results of the initial Site investigation and, similar to Ford, concluded that the Site posed a potential health concern.

EPA Ensured Removing Identified Paint Sludge and Implementing Appropriate Remedy

In 1987, EPA issued a Unilateral Administrative Order to Ford to initiate a program for removing paint sludge and associated contaminated soils. As a result, Ford removed 11,340 tons of paint sludge and contaminated soil from the Site identified during the initial investigation. With these removal efforts completed in 1988, EPA believed it had removed the source of groundwater, surface water, and sediment contamination at the Site.

In 1988, EPA issued a record of decision documenting the “no further action remedy.” The remedy included a long-term monitoring program to ensure protection of human health and the environment. In 1989, EPA ensured that Ford initiated the long-term monitoring program according to the requirements of the record of decision and work plan approved under the Administrative Order. The work plan called for a 5-year monitoring program. It focused on the areas of concern identified during the initial Site investigation. The work plan also called for an evaluation of the monitoring program after the first year.

Because of acceptable test results during the first year, EPA and Ford agreed to reduce the number of wells sampled. In addition, EPA reduced the type of testing performed for potable and groundwater monitoring. Ford, with EPA approval, discontinued surface water monitoring because none of the pollutants exceeded their acceptable levels.

From 1990 to 1995, except for sporadic detection of lead and arsenic above acceptable levels, groundwater quality essentially remained unchanged since the initial Site investigation. Where wells showed a detection of lead and arsenic above acceptable levels, EPA required additional rounds of sampling. Sample results, issued in 2001, indicated that detection levels of lead and arsenic in the sampling wells were below acceptable levels, and thus protective of human health and the environment. On this basis, EPA made the decision to discontinue groundwater monitoring at the Site.

EPA Followed the Process for Site Deletions, But Did Not Notify Community of 5-Year Reviews

EPA followed the process for site deletions and conducted the required 5-year reviews. Under CERCLA, when no further response action is appropriate, EPA can delete a site from the NPL once it meets criteria. CERCLA also requires that EPA conduct 5-year reviews at sites in order to determine whether remedies are protecting, or will protect, human health and the environment.

On November 2, 1994, EPA deleted the Site from the NPL. EPA and NJDEP determined that no further cleanup by responsible parties was appropriate and that activities conducted at the Site were protective of human health and the environment. EPA’s actions related to the deletion process were consistent with requirements. The Agency used information from the record of decision, the initial Site investigation, and the long-term monitoring and paint sludge removal programs as the basis for the deletion. In 1993, EPA published a *Notice of Intent of Deletion* in the Federal Register. This notice stated EPA had also published a notice in the local newspapers, but EPA’s records did not contain the notice. EPA received no public comment regarding the deletion during the 30-day comment period.

In 1998, EPA conducted its first 5-year review at the Site. The review addressed most of the required components of a 5-year review. However, EPA did not notify the

community of the planned 5-year review or of its results.² Per 5-year review guidance issued in 1991: “EPA will inform the public when it determines that either a Statutory or Policy five-year review is appropriate, describe the planned scope of such reviews, identify the location of the report on the review (see section V below), and describe actions taken based on any review.” Based on the 1998 5-year review, EPA concluded that the Site was protective of human health and the environment. The Agency noted that continued removal of known paint sludge at the Site had eliminated the source of contamination. However, because paint sludge removal and monitoring activities were ongoing at the time of the review, EPA recommended another 5-year review on or before September 30, 2003.

In 2003, EPA issued an addendum to the 1998 5-year review. EPA concluded that the results of the long-term monitoring, completed in 2001, showed a decrease in the levels of Site-related contaminants to acceptable levels. With these acceptable levels, the Site no longer warranted groundwater monitoring. EPA had not identified additional paint sludge deposits since completion of the removal action in 1998. On this basis, EPA declared the Site protective of human health and the environment, and recommended discontinuing the 5-year review process.

However, as with the 1998 5-year review, we found no evidence that EPA met the community notification requirements, as defined in the June 2001 *Comprehensive Five-Year Review Guidance*. EPA must notify the community when the 5-year review will begin, when it is completed, and the results of the review. Because EPA removed additional paint sludge in 2004 and restored the Site to the NPL in September 2006, it plans to conduct additional 5-year reviews at the Site, starting in 2011. EPA will need to ensure it informs the community of the initiation and results of that review.

EPA Needs to Improve Current Recordkeeping Practices

In our discussion with the current Remedial Project Manager (RPM) regarding EPA’s relationship with NJDEP, he stated that EPA and NJDEP provide comments to each other regarding work plans and other cleanup related documents and have meetings and teleconferences to discuss issues. He explained that the results of these meetings or negotiations are not always in writing and that each RPM may handle it differently because no standard protocol exists in this area. He noted that he does not document site visits in many cases. As applicable guidance, Region 2 cited the 1999 *CERCLA Enforcement Project Management Handbook*. The *Handbook* assists Superfund RPMs in managing response actions led by potentially responsible parties. In a June 13, 2007, response to an OIG information request, Region 2 managers wrote the following:

EPA believes this guidance does suggest that PRPs [potentially responsible parties] and EPA’s oversight assistant (usually an EPA contractor or Army Corps of Engineer representative) keep accurate

² For more information on community communications at the Site, see Chapter 3 of OIG Report No. 2007-P-00016 titled *Environmental Justice Concerns and Communication Problems Complicated Cleaning Up Ringwood Mines/Landfill Site*.

records of site activities through the use of field activity reports, field logbooks and photographic logs. However, this guidance does not recommend that the RPM keep written records of all site visits and discussions with NJDEP.

We agree that this guidance does not recommend that RPMs maintain records of all site visits and all conversations with State personnel. However, documentation of the results of meetings and teleconferences, as well as decisions made during site visits, should comply with the requirements and responsibilities of EPA's records management policies and program. EPA documents this in its Records Management Manual.

Under the authority of the Federal Records Act, EPA's Agency-wide Records Management Manual requires written documentation of meetings and site visits in certain circumstances. The Records Management Manual states that an information resource may be a record if it

- (1) documents significant Agency decisions and commitments;
- (2) adds to a proper understanding of the formulation or execution of Agency actions, operations, and responsibilities;
- (3) conveys information of value on important Agency activities;
- (4) facilitates action by Agency staff;
- (5) provides key substantive comments on a draft; and
- (6) makes possible a proper scrutiny by Congress or the Agency.

Based on our interviews of EPA Site managers, we believe that site visits and discussions with State officials would often meet several of the six definitions described above. In specifically addressing discussions with State agencies, the manual states "any oral communication where an Agency decision or commitment is made, and that is not otherwise documented, needs to be captured and placed in the recordkeeping system." We believe EPA's Records Management Manual applies to all EPA programs and offices, and supports improved Region 2 documentation of its site-related discussions and site visits.

Recommendations

We recommend that the Region 2 Administrator direct the Region's Emergency and Remedial Response Division (ERRD) to:

1. Conduct a followup Section 104(e) request to Ford Motor Company requesting any relevant information regarding its waste disposal activities at Ringwood that Ford may still have and has not yet submitted. We also request that Ford certify that the information submitted is complete.
2. Notify the Ringwood community of the initiation and results of any future 5-year reviews at the Ringwood site, consistent with EPA guidance.

3. Provide ERRD staff with written guidance defining their responsibilities for complying with EPA's records management policies when conducting conversations with State officials and during site visits.

Agency Comments and OIG Evaluation

The OIG made changes to the report based on Region 2's comments where appropriate. Appendix C provides the full text of the Region's comments.

Region 2 agreed with recommendation 1 and stated that within 90 days, they will issue a follow-up Section 104(e) request to the Ford Motor Company requesting that Ford perform a review of all relevant and appropriate company files and provide EPA with any new information that Ford uncovers. Furthermore, EPA will demand that Ford certify that all information provided to EPA, including past submittals, is true, accurate, and complete. In response to our final report, Region 2 will need to comment on the status of these proposed actions. Recommendation 1 is open.

Region 2 agreed with recommendation 2 and stated "consistent with EPA's *Comprehensive Five-Year Review Guidance*, dated June 2001, Region 2 will notify the community of any future 5-year reviews to be conducted at the Ringwood Mines/Landfill site." After re-listing the Site in September 2006, the earliest possible date for Region 2 to conduct a 5-year review is 2011. We will close recommendation 2 in the Inspector General Operations and Reporting System. However, the OIG may follow up to ensure this recommendation has been implemented.

Region 2 did not agree with recommendation 3 and believes that ERRD currently complies with EPA's Records Management policies. Region 2 said that it documents significant Agency decisions and commitments in writing and has done so at the Ringwood site. We revised the report based on the Agency comments regarding EPA's Records Management Manual. Although the Region believes it is currently in compliance, the OIG found that past practices at the Ringwood site did not appear to be in compliance. Therefore, we have revised recommendation 3 to provide ERRD staff with written guidance defining their responsibilities for complying with EPA's records management policies when conducting conversations with State officials and during site visits. Recommendation 3 is open and unresolved.

Status of Recommendations and Potential Monetary Benefits

RECOMMENDATIONS						POTENTIAL MONETARY BENEFITS (in \$000s)	
Rec. No.	Page No.	Subject	Status ¹	Action Official	Planned Completion Date	Claimed Amount	Agreed To Amount
1	9	Direct the Region's Emergency and Remedial Response Division to conduct a follow-up Section 104 (e) request to Ford Motor Company requesting any relevant information regarding its waste disposal activities at Ringwood that Ford may still have and has not yet submitted. We also request that Ford certify that the information submitted is complete.	O	Region 2 Administrator	January 2008		
2	9	Direct the Region's Emergency and Remedial Response Division to notify the Ringwood community of the initiation and results of any future 5-year reviews at the Ringwood site, consistent with EPA guidance.	C	Region 2 Administrator	12/31/2011		
3	10	Provide Emergency and Remedial Response Division staff with written guidance defining their responsibilities for complying with EPA's records management policies when conducting conversations with State officials and during site visits	U	Region 2 Administrator			

¹ O = recommendation is open with agreed-to corrective actions pending;
 C = recommendation is closed with all agreed-to actions completed;
 U = recommendation is undecided with resolution efforts in progress

Timeline of Events at Ringwood

1967	Ford contracted with a waste hauler to dispose of waste materials from Ford's Mahwah, New Jersey, plant.
1974	Ford stopped sending waste of any type to the Site.
1983	EPA placed the Site on the NPL.
1984	EPA identified Ford as a potential liable party for contamination at the Site.
1984 -1988	Ford conducted the initial Site investigation to determine the nature and extent of Site contamination.
1987-1988	Ford removed 11,340 tons of paint sludge and associated soils identified during the initial Site investigation.
1988	EPA issued a record of decision to implement a long-term monitoring program for the Site.
1990-1991	Ford removed an additional 600 cubic yards (and also 54 drums) discovered during construction-related activities. EPA officially identified the Borough of Ringwood as a potential liable party for contamination at the Site.
1993	EPA published a <i>Notice of Intent of Deletion</i> from the NPL in the Federal Register.
1994	EPA deleted the Site from the NPL.
1995	Ford removed an additional 5 cubic yards of paint sludge from residential property.
1998	Ford removed an additional 100 cubic yards of paint sludge discovered by the community.
1998	EPA conducted its first 5-year review for the Site.
2001	Ford released its final long-term monitoring report and recommended discontinuing its monitoring program.
2003	EPA issued an addendum to the 1998 5-Year Review and recommended discontinuing the monitoring program and 5-year review process.
2004	Ford initiated removal actions in December and has removed over 24,000 tons.
2005	EPA issued orders to Ford and the Borough of Ringwood for a supplemental Site investigation to determine the nature and extent of remaining contamination.
2006	EPA restored the Site to the NPL.

Details on Scope and Methodology

We conducted our evaluation from June 2006 through July 2007 in accordance with generally accepted government auditing standards. We limited our review to compliance with those management controls related to the issues identified in the congressional request. Our scope covered the cleanup of the Site and EPA's oversight role. We reviewed activities from Site discovery (1979) through 2003. Our review did not include assessing activities at the Site since 2004 or those activities pertaining to the Administrative Orders EPA issued to Ford and the Borough in 2005. To understand EPA's oversight role and specific Site activities, we interviewed past and present EPA Site managers in Region 2. We also reviewed the National Contingency Plan (NCP), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and other program documents and records applicable to EPA's Superfund process.

To address the restoration of the Site on the NPL, we reviewed documents related to paint sludge removal activities. These activities happened before and after EPA deleted the Site from the NPL. We also reviewed documents pertaining to the current supplemental investigative activities conducted by Ford. We compared current and past activities at the Site to determine differences in EPA's approach. We compared current and past investigative practices used in identifying paint sludge.

To address the appropriateness of the remedy selected, we reviewed key documents leading to selection of the remedy. The documents included the remedial investigation, feasibility study, risk assessment, paint sludge removal program, and the record of decision. We evaluated the completeness, thoroughness, and accuracy of these documents. We based our evaluation on applicable criteria. The criteria included the NCP, CERCLA, and various Office of Solid Waste and Emergency Response (OSWER) Directives. In addition, we evaluated EPA's and NJDEP's review and approval of these documents.

To evaluate whether EPA provided proper oversight of the initial Site investigation, feasibility study, the paint sludge removal program, and Site cleanup in accordance with applicable laws, regulations, policies, guidance, and past Agency practices, we reviewed documents related to EPA's activities and processes. Likewise, we assessed EPA actions related to the remedy selection process, 5-year reviews, Site closeout, and deletion from the NPL. We evaluated these processes based on applicable criteria at the time of the cleanup. We also reviewed various OSWER Directives pertaining to Site deletion and 5-year reviews.

To determine consistency with past Agency practices, we conducted a search for an NPL site similar to the Ringwood site. We searched EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database. We also asked EPA Region 2 Site managers whether they were aware of any NPL sites similar to Ringwood. Our analysis did not result in the identification of a site that had enough similar characteristics to compare. Therefore, we were unable to determine consistency with past Agency practices.

Agency Comments on Draft Report

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 2

DATE: September 20, 2007

SUBJECT: Region 2 Comments on OIG Draft Report - Ringwood Mines

FROM: Donna J. Vizian
Assistant Regional Administrator for Policy and Management /s/

TO: Carolyn Copper
Office of Inspector General

EPA Region 2 welcomes the opportunity to comment on the Office of the Inspector General's draft Evaluation Report on the Ringwood Mines/Landfill Superfund site.

Region 2's responses to each recommendation in the draft report are as follows:

OIG Recommendation #1

"We recommend that the Region 2 Administrator direct the Region's Emergency and Remedial Response Division to conduct a follow-up Section 104 (e) request to Ford Motor Company requesting any relevant information regarding its waste disposal activities at Ringwood that Ford may still have and has not yet submitted. We also request that Ford certify that the information submitted is complete."

Region 2 Response

Region 2 concurs; within ninety (90) days we will issue a follow-up Section 104(e) request to the Ford Motor Company requesting that Ford perform a review of all relevant and appropriate company files and provide EPA with any new information that Ford uncovers. Furthermore, EPA will demand that Ford certify that all information provided to EPA, including past submittals, is true, accurate and complete. It should be noted, however, that Ford has on at least two prior occasions supplemented its response to EPA's original 104(e) request. Furthermore, Ford has a continuous, legal obligation to supplement its original response, if additional pertinent information is uncovered.

OIG Recommendation #2

"We recommend that the Region 2 Administrator direct the Region's Emergency and Remedial Response Division to notify the Ringwood community of the initiation and results of any future 5-year reviews at the Ringwood site, consistent with EPA guidance."

Region 2 Response

Region 2 concurs; consistent with EPA's *Comprehensive Five-Year Review Guidance*, dated June 2001, Region 2 will notify the community of any future 5-year review to be conducted at the Ringwood Mines/Landfill site.

OIG Recommendation #3

"We recommend that the Region 2 Administrator direct the Region's Emergency and Remedial Response Division to comply with EPA's Records Management Policy for creating written records of staff conversations with State officials and Site visits when these criteria apply to the conversation or Site visit that it

- documents significant Agency decisions and commitments;
- adds to a proper understanding of the formulation or execution of Agency actions, operations, and responsibilities;
- conveys information of value on important Agency activities;
- facilitates action by Agency staff;
- provides key substantive comments on a draft; and
- makes possible a proper scrutiny by Congress or the Agency."

Region 2 Response

First, please note that the bulleted points quoted in the above recommendation are not from EPA's Records Management Policy, rather are from EPA's Records Management **Manual**, which is a separate document. In addition, the OIG on page 8 of the report states that "an information resource **will** be a record if it", but the Records Management Manual states that "an information resource **may** be a record if it..." It is important to note the distinction between will vs. may.

Region 2 believes that its Emergency and Remedial Response Division currently complies with EPA's Records Management policies. Region 2 does document significant Agency decisions and commitments in writing and has done so at the Ringwood site. For example, January 17, 2007 e-mail correspondence between the Region 2 Remedial Project Manager and a State official clearly documents in writing the decision to allow water generated during removal work in the SR-9 area of the Site to be discharged to the ground. Another example concerns the very contentious issue of vibrations monitoring. Although a number of site visits were conducted, the actual decisions were documented in letters from our Regional Administrator to the NJDEP Commissioner on May 11, 2007 and May 17, 2007.

It should be noted that significant Agency decisions are made by Region 2 after consultation with appropriate EPA and NJDEP technical support staff. This is best accomplished by requiring the performing party to submit a work plan which details the proposed cleanup or investigatory work. The work plan is then reviewed by appropriate Region 2 and NJDEP staff and written comments are provided to the Region 2 Remedial Project Manager. Comments and concerns regarding the adequacy of the draft work plan are then compiled into a comment letter which is provided to the performing party. When the work plan is deemed acceptable to Region 2, an approval letter is provided to the performing party. Therefore, while written documentation of all conversations and site visits regarding a particular technical issue is not generated, written records which document Region 2's decision-making process are generated and should be present in the Site files. If a significant decision regarding a technical issue is decided during a site visit, Region 2 will generate a memo to the file to document this. Otherwise, Region 2 will evaluate information collected during a site visit after completion of the visit and, if appropriate, a decision will be documented in writing to the appropriate party.

Additional Comment

Page 2, 2nd paragraph – This report indicates that since December 2004, Ford has removed over 22,000 tons of paint sludge and soil. Please note that over 24,000 tons of paint sludge and soil have been removed by Ford during this timeframe.

If you have any questions on the attached comments, please contact John Svec of my staff at (212) 637-3699.

Distribution

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Deputy Regional Administrator, EPA Region 2
Associate Assistant Administrator, Office of Solid Waste and Emergency Response
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Agency Followup Coordinator
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