U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

Date: December 22, 1995

From: Irmee Huhn, OSC, Region II Irmee Huhn 1/2/96
Removal Action Branch

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START	

Subject: Pyridium Mercury Disposal Site No. 2 (Pyridium 2)
Village of Harriman, Orange County, New York

POLREP NO.: Three (3)

II. BACKGROUND

Site No.:	EZ
Response Authority:	CERCLA
NPL Status:	Non-NPL
State Notification:	NYSDOH notified
Action Memo Status:	Authorization on 09/29/95
Start Date(verbal):	02/27/95 (Verbal Authorization)
Completion Date:	03/09/95
RV.2 **Restart Date:**	10/20/95
Completion Date:	N/A

III. SITE INFORMATION

A. Site Description

1. Site location

The Pyridium Mercury Disposal Site No. 2 is a residential property located at 40 South Main St., Village of Harriman, Orange County, New York. The site is a ¼- acre residential property, back-filled with mercury-contaminated industrial waste. The site includes a two-story, nineteenth century farmhouse predating the waste disposal activities. For the past three years, a woman

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and her two small children have rented the house.

In the early 1950s, approximately 8 to 15 truckloads of waste were allegedly dumped in an L-shaped pattern in the front yard. The waste was allegedly a mercuric or mercurous salt generated during the production of niacinamide (vitamin B-3) by the former Pyridium Corporation. The waste was used to back-fill low-lying areas in the front yard.

Site investigations, conducted by the EPA and the New York State Department of Health (NYSDOH) in October and December 1994, indicated that approximately 500 cubic yards of waste were used as back-fill. Analytical results of the waste samples indicate elevated mercury concentrations as high as 477 milligrams per kilogram (mg/kg). Typical soil background mercury concentrations are less than 1 mg/kg in this geographic location.

On November 17, 1994, the EPA Environmental Response Team (ERT) and the Response Engineering and Analytical Contractor (REAC) collected dust samples from inside the house. Mercury was detected at concentrations of 1.38 mg/kg and 2.06 mg/kg in two dust samples that were collected.

The EPA On-Scene Coordinator (OSC) informed the resident of the site investigation results and advised her to limit use of the contaminated areas.

On February 27, 1995, EPA mobilized ERCS to the site to install a chain link fence in the back of the house which provided a safe, mercury waste free environment for the children and the family pet to play. The pre-existing fence in the front of the property was modified to enclose the main area of contamination. The front fence was secured with a locked gate to restrict access.

On March 8, the rooms on the first floor of the residence were cleaned as a precautionary measure, in case any of the mercury waste had been tracked inside. All equipment and personnel were demobilized on March 8, 1995. This interim action was conducted by EPA under verbal authorization from the Division Director.

2. Description of Threat

In January 1995, a Draft Health Consultation Report was prepared by the NYSDOH under a cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR). The report states that the Pyridium Mercury Disposal Site No. 2 is a public health hazard due to high

mercury concentrations in the soils. Residents are suspected to be at risk of kidney damage through mercury ingestion, inhalation and dermal contact. The draft Health Consultation was finalized on August 28, 1995.

IV. RESPONSE INFORMATION

A. Situation

1. Current situation

An access agreement was faxed to the property owner on October 20, 1995 but was not signed until November 27, 1995. This delayed the initiation of excavation activities at the site.

The tenants at the home (a woman and two small children) have been temporarily relocated approximately two miles from the site to a two-family farmhouse. This action was necessary to eliminate the tenants potential exposure to mercury waste during the cleanup activities.

2. Removal actions to date

On November 29, 1995, temporary housing was secured for the tenant that resides at the site. On November 30, 1995, EPA, START and ERCS returned to the site to set up support facilities and finalize the temporary housing arrangements for the tenant.

On December 4, 1995, OHM was on site to remove the fence around the property in preparation for the removal of a large willow tree by a subcontractor. On December 5, 1995, the willow tree and two smaller trees in the front of the property were removed by the subcontractor. In response to a concern expressed by the tree subcontractor, a sample of tree chippings was collected and analyzed for total mercury. The results did not detect mercury in concentrations above the laboratory method detection limit of 0.02 ppm mercury. The stump of the tree was decontaminated by OHM, and disposed of by the tree subcontractor. All tree chips, logs and the stump were transported by the subcontractor to their facility and segregated according to size. The logs were staged to be sent to the mill or used as firewood, and the wood chips were stockpiled and given away as landscaping materials. The stump was chipped in an industrial chipper and stockpiled for distribution as landscaping materials.

On December 6, 1995 excavation of mercury contaminated soil was initiated. On December 7 and 8, 1995, nine trucks were loaded with waste for transportation and disposal at Chambers Development located in Holsopple, PA.

On December 11-15, 19 loads of contaminated soil were shipped to the Chambers Development facility. Post excavation samples were collected as areas of the excavation were completed to verify the effectiveness of the removal action. A clean up level of 25 ppm mercury was determined to be protective of human health. During the week, 24 post excavation soil samples were collected and analyzed for total mercury. One post excavation sample collected from the north center wall of the excavation contained slightly elevated levels of mercury. A post excavation sample was collected two feet from the edge of the excavation to delineate the extent of contamination in the area. Analysis of the sample confirmed that mercury was not present above the clean up level. Based on the results of the preliminary laboratory data the removal action was successful in mitigating the threats associated with the mercury contaminated waste disposed on the property. Final analytical results should be received by January 2, 1996.

On December 15, 1995, 22 loads of certified clean fill were delivered to backfill the excavation and restore the area to original grade. Approximately 10 yd3 of contaminated soil from an area where post excavation sampling identified elevated levels of mercury was re-excavated, loaded and transported to Chambers Development for disposal. This was the final shipment of contaminated soil from the Site.

On December 18, 1995, 14 loads of clean fill and 9 loads of topsoil were delivered and graded on the site. A total of 622 cubic yards of fill and 156 cubic yards of topsoil were utilized to restore the property to the original grade. Following grading, the excavated area was seeded with grass and covered with straw.

On December 18, 1995, the crew was demobilized. The equipment was scheduled for demobilization on December 20, but due to heavy snow fall on December 19-20, it was rescheduled for December 21. The property owner and tenant were made aware of the completion of the excavation of contaminated soil and the restoration of the property. The temporarily relocated tenants were notified that they could return to the residence as soon as convenient. Site security was discontinued since site activities were completed.

Due to the inclement weather and holidays, some of the rental equipment was not demobilized on December 21, 1995. The vendors were notified that security was discontinued and EPA was no longer responsible for the equipment after December 21, 1995.

3. **Enforcement**

The Office of Regional Council is reviewing available site documentation to identify PRPs and will evaluate the viability of legal claims stated by Nepera.

B. **Next Steps**

1. EPA may return in the spring to reseed and possibly regrade the property.

C. **Key Issues**

Loading of the contaminated soil was conducted in the driveway of the residence, due to the power lines adjacent to the roadway. Slight damage was caused by the trucks which may be repaired in the spring. On December 11, 1995, the operator utilized the excavator bucket to remove 3 inches of snow from the driveway. This activity damaged the driveway due to the scraping of the bucket on the asphalt pavement.

V. COST INFORMATION

The following are estimated costs for the removal action as of December 22, 1995:

	PROJECT CEILING	COSTS TO DATE	FUNDS REMAINING
ERCS Costs	$302,000	$110,200	$ 191,800
START Costs	$ 46,000	$ 11,000	$ 35,000
EPA Cost	$ 83,000	$ 25,000	$ 58,000
TOTAL PROJECT CEILING	$431,000	$146,200	$ 284,800

The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure, which the EPA may include in any claims for cost recovery.

VI. DISPOSITION OF WASTE

Wastestream	Medium	Quantity	Containment Migration Control	Treatment	Disposal
Non-hazardous soil	solid	610 cubic yards (est.)	dump trailers	landfill	Chambers Development Co. Inc., Southern Alleghenies, Holsopple, PA