United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Tuesday, November 23, 2004
From: Kevin Misenheimer

Subject: Final Polrep
Hattiesburg WTP Mercury Spill
900 James Street, Hattiesburg, MS

POLREP No.:	2	**Site #:**	1179
Reporting Period:		**D.O. #:**	
Start Date:	11/17/2004	**Response Authority:**	CERCLA
Mob Date:	11/17/2004	**Response Type:**	Emergency
Demob Date:	11/19/2004	**NPL Status:**	Non NPL
Completion Date:	11/19/2004	**Incident Category:**	Removal Assessment
CERCLIS ID #:		**Contract #**	
RCRIS ID #:			

Site Description

On 17 November 2004 MDEQ SOSC Ernie Shirley notified that a mercury release occurred at the Hattiesburg water treatment plant due to a flow detection instrument that failed. The mercury spill originated from a flow meter in the laboratory of the water treatment plant. Mercury was observed leaking from the meter and water treatment plant personnel removed the meter from the lab, but this resulted in spillage in the hallway and stairwell of the plant. An unknown quantity of mercury was released. MSDEQ hired U.S. Environmental Services (USES) to conduct the clean up which included the use of mercury-specific absorbents and mercury vacuum cleaners. USES removed free mercury from the floor and stairwell and wiped down areas believed to be contaminated. In addition, the Gerome vapor analyzer was used to monitor mercury vapor levels in the building. USES also removed potentially contaminated materials from the building. MSDEQ requested assistance from EPA to conduct air monitoring and provide other technical assistance.

Current Activities

EPA OSC Kevin Misenheimer and START contractor TTEMI mobilized to the site to assist with the airborne detection of mercury using the Lumex mercury vapor analyzer and to provide guidance regarding clean up measures.

OSC Misenheimer and START arrived on scene at approximately1530 CST on 17 November. A site briefing was given by Unified Command (SOSC Shirley, EMA Steed and WTP operator Michael Smith). A health and safety briefing was also conducted with START and MDEQ contractor USES. Based on these briefings, it was determined that additional assessment using the Lumex vapor analyzer was required to determine the effectiveness of clean up actions to date.

EPA and START conducted a Level C entry to monitor mercury vapor levels using the Lumex. Monitoring was conducted in the stairwell, control room, laboratory, and several offices. Mercury vapors were measured at head level at concentrations of 34,000 ng/m3 in the stairwell, 29,000 ng/m3 in the laboratory, 22,500 ng/m3 in the control room and 36,000 ng/m3 in the second floor hallway. In addition to these levels detected at head level, higher readings (up to 53,000 ng/m3) were observed at floor level on the main stairwell and around the first floor entrance to the building.

Based on this data collected by EPA, MDEQ directed USES to continue clean up actions to remove additional sources of mercury and to reduce vapor concentrations in the areas of concern. USES again wiped down all surfaces with mercury sorbent material and cleaned the metal on the stairs using an acid solution. Once these activities were completed, EPA and START conducted another round of air monitoring to evaluate the effectiveness of clean up actions. Mercury vapors were measured at head level at concentrations of 7,000 ng/m3 in the stairwell, 6,700 ng/m3 in the laboratory, 5,100 ng/m3 in the control room and 2,000 ng/m3 in the second floor hallway.

MDEQ then directed USES to heat and vent the building. This procedure of heating and venting of the building was repeated several times. START then conducted one final entry to monitor mercury vapors using the Lumex. Mercury vapors were measured at head level at concentrations of 8,000, 5,000 and

2,000 ng/m3 in the stairwell, 1,000 ng/m3 in the laboratory and 2,100 ng/m3 in the control room. Based on these results, EPA and MDEQ determined that clean up actions were complete and that the City of Hattiesburg could re-occupy the building to conduct routine water treatment operations.

After consultation with FOSC Jones, USES placed hazardous and non-hazardous mercury contaminated material from the site into roll-off containers being used for the nearby Chapman Mercury Site. Waste was segregated into hazardous and non-hazardous roll-off containers. Hazardous waste consisted of approximately 15 bags of material and non-hazardous waste consisted of three chairs, several boxes and a printer. This material will be disposed of as a part of the final actions at the Chapman Mercury Site.

Planned Removal Actions
None

Next Steps
None

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