

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Mercury Boys and Girls Home - Removal Polrep  
Initial and Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region VII

**Subject:** POLREP #1  
First and Final POLREP  
Mercury Boys and Girls Home  
A7Q8  
Sioux City, IA  
Latitude: 42.5131000 Longitude: -96.3975000

**To:**  
**From:** Doug Ferguson, OSC  
**Date:** 10/29/2009  
**Reporting Period:**

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	A7Q8	<b>Contract Number:</b>	
<b>D.O. Number:</b>		<b>Action Memo Date:</b>	
<b>Response Authority:</b>	CERCLA	<b>Response Type:</b>	PRP Oversight
<b>Response Lead:</b>	EPA	<b>Incident Category:</b>	Removal Action
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b>	7/14/2009	<b>Start Date:</b>	7/14/2009
<b>Demob Date:</b>	10/29/2009	<b>Completion Date:</b>	10/29/2009
<b>CERCLIS ID:</b>	IAN000706043	<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	
<b>FPN#:</b>		<b>Reimbursable Account #:</b>	

On July 14-15, 2009, OSC Ferguson responded to a request for assistance in assessing a mercury spill in an abandoned boiler room of a detached building on the grounds of a Boys and Girls Home in Sioux City, Iowa. The request was made by the Sioux City Hazmat Team after the spill was reported to the National Response Center. OSC Ferguson also coordinated assessment activities with Rodney Tucker at the Iowa Department of Natural Resources. The mercury spill is believed to have been accidentally released by an individual recovering scrap metal from the site. The mercury spill appears to be located in a 10 foot by 20 foot area in the northeast corner of the building. Poor lighting and copious amounts of debris may have obscured the extent of the spill.

## 2. Current Activities

### 2.1 Operations Section

On August 3, 2009, cleanup contractors for the Potentially Responsible Party (PRP) (Boys and Girls Home) removed all of the mercury that could be removed by physical means. Afterwards, the air ventilated from the boiler room was screened with the Lumex™ MVA, and the mercury vapor concentrations were about 68,000 ng/cubic meter. ATSDR has set 3,000 ng/cubic meter as a goal for the site. At that time, the contractor planned to return with a mercury absorbent spray.

On August 11, 2009 OSC Ferguson screened the air being ventilated from the boiler room building. The mercury vapor concentrations were 8161 ng/cubic meter. The PRP's contractor will continue cleanup activities after which the site will be screened again.

On August 26, 2009 OSC Ferguson screened the boiler room with the Lumex™ MVA. The area around where the original spill occurred had mercury vapor concentrations up to 50,000 ng/cubic meter. The area between the stairs and the spill area ranged from 1500-3000 ng/cubic meter. The area underneath the steps leading to the doorway had mercury concentrations up to 3000 ng/cubic meter. All of these measurements were taken at about one inch from the floor of the boiler room. Although no visible beads of mercury were observed, further removal activities to lower mercury vapor concentrations were discussed with the PRP's cleanup contractor.

On September 1, 2009, the PRP's cleanup contractor ventilated the air from the boiler room and removed debris from the floor of the boiler room by sweeping it and using a mercury vacuum. Additionally, epoxy was placed over the area of the spill to seal off minute amounts of mercury absorbed into the cement that could not be removed by ordinary physical means.

The Sioux City Hazmat Team used a Lumex™ to check mercury vapor concentrations in the air of the building on September 8, 2009. The mercury vapor concentration exceeded levels of concern for human health at the top of the wall that the mercury containing pressure gages were removed from and the PRP agreed to coat the wall with epoxy.

On September 10, the PRP coated the mercury contaminated wall with epoxy and on September 17, 2009 the Sioux City Hazmat Team found the room did not contain mercury vapor concentrations above levels of concern for human health except at a floor drain near the area where the mercury was spilled.

On October 28, 2009, the PRP's cleanup contractor used a mercury vacuum to clean out the floor drain and capped the drain with expanding foam.

On October 29, 2009, the Sioux City, Iowa Hazmat Team measured mercury vapor concentrations at 600 ng/m<sup>3</sup> which are well below the cleanup goal of 3000 ng/cubic meter established for this site by ATSDR. A total of four 55 gallons drums of mercury contaminated material was disposed of at Phillips Services Corporation in Kansas City, MO.

## **2.2 Planning Section**

No information available at this time.

## **2.3 Logistics Section**

No information available at this time.

## **2.4 Finance Section**

No information available at this time.

## **2.5 Other Command Staff**

No information available at this time.

## **3. Participating Entities**

### **3.1 Unified Command**

Doug Ferguson FOSC USEPA Region 7  
Rodney Tucker SOSC IDNR  
Jim Clark Sioux City, IA Hazmat Task Force

### **3.2 Cooperating Agencies**

Greg Pranke, PRP Representative, Boys and Girls Home Sioux City, IA  
Dan McCarty, PRP's Cleanup Contractor, Environmental Solutions, Inc.

## **4. Personnel On Site**

No information available at this time.

## **5. Definition of Terms**

No information available at this time.

## **6. Additional sources of information**

No information available at this time.

## **7. Situational Reference Materials**

No information available at this time.