

**United States Environmental Protection Agency**  
**Region IV**  
**POLLUTION REPORT**

**Date:** Thursday, October 1, 2009

**From:** Carter Williamson

**Subject:** FINAL POLREP

Goodwater Mercury Spill  
Route 3, 51-D, Goodwater, AL  
Latitude: 33.0611000  
Longitude: -86.1364000

<b>POLREP No.:</b>	4	<b>Site #:</b>	A4ZS
<b>Reporting Period:</b>	08/26/09 - 10/01/09	<b>D.O. #:</b>	
<b>Start Date:</b>	6/13/2009	<b>Response Authority:</b>	CERCLA
<b>Mob Date:</b>	6/12/2009	<b>Response Type:</b>	Emergency
<b>Demob Date:</b>		<b>NPL Status:</b>	
<b>Completion Date:</b>		<b>Incident Category:</b>	Removal Action
<b>CERCLIS ID #:</b>		<b>Contract #</b>	
<b>RCRIS ID #:</b>			

#### Site Description

The Goodwater Mercury Spill began in October 2008 when the owners of a mobile home on Route 3 in Goodwater, Alabama, spilled an estimated 1 pound of mercury in the master bedroom of the residence, which was a modified mobile home. The homeowners then vacuumed up the spill with a standard vacuum cleaner. No further action was taken until 9 months later, when medical tests showed that both homeowners had elevated blood levels of mercury. At that time, the spill was reported to local health officials. After they discovered the mercury poisoning, the homeowners removed the carpeting from the master bedroom, placed the living room sofas outside, and moved the bed into the living room in an effort to reduce their exposure. The U.S. Environmental Protection Agency (EPA) Region 4 Emergency Response and Removal Branch was notified of the incident on June 12, 2009. Responding OSC and ADEM, ERRS and START team determine high levels of mercury inside manufactured home. Ambient breathing zone levels in the northern end of the residence ranged from 2,000 to 3,000 nanograms per cubic meter (ng/m3) and increased as START (Tetra Tech) progressed south through the residence toward the master bedroom, where the mercury was spilled. Breathing zone levels in the master bedroom were around 20,000 ng/m3. Floor-level readings ranged from 15,000 ng/m3 at the door to more than 40,000 ng/m3 in the closet. The homeowners were relocated and work was begun to try and remove contaminated portions of the home.

#### Current Activities

Based on input from the Agency for Toxic Substances and Disease Registry (ATSDR), EPA has established a residential indoor attainment goal for mercury vapor of 1,000 ng/m3. Based on the levels observed within the home, OSC Williamson initiated time-critical removal activities. ERRS (WRSSCompass) was contracted to remediate the spill and its impact to the residence. The homeowners were asked to temporarily relocate to an EPA provided hotel while remediation was under way. Homeowners were relocated through CIC, ERRS and USACE assistance. Personal belongings removed and either saved/stored in polybags within connex box or destroyed. Response activities to lower mercury vapor levels in residence were deemed ineffective after tearing out bedroom (source of spill) to framing. Tetra Tech assessed the exposed subfloor and wall joists from the master bedroom and identified mercury levels remaining at the surface of more than 40,000 ng/m3. Ambient levels were approximately 16,000 ng/m3. START conducted hourly monitoring which was also unsuccessful. Based on these levels, OSC Williamson elected to remove additional structural components. In response, USES removed the subfloor, ceiling panels, and ceiling insulation from the master bedroom. Tetra Tech assessed the newly exposed components and found that the mercury contamination had seeped deeply into the structure of the building over the intervening 9 months since the spill occurred.

#### Planned Removal Actions

On June 16, in response to OSC Williamson's request, ATSDR stated that, given the homeowners' existing medical conditions, it was strongly recommended all indoor air locations be brought below the 1,000 ng/m3 threshold before the homeowners reoccupied the home. Based on the results of the clearance test, it was apparent that mercury vapor had deposited on surfaces throughout the residence

during the 9 months since the spill, making full remediation nearly impossible. Given the fact that attaining the 1,000 ng/m<sup>3</sup> remediation goal was highly unlikely without extreme remediation measures and the relatively high cost of performing additional remediation to achieve that goal, OSC Williamson elected to replace the residence with another mobile home through the USACE. OSC Williamson also tasked WRS/USES with removing all personal items from the building and preparing them for bagged screening. Non-personal items, such as food, were placed directly into a roll-off container for disposal. Household hazardous wastes were collected and placed into storage bins outside. START was tasked with inventorying all appliances in the home. Items were also removed from a storage area beneath the residence and placed in a storage shed away from the residence. The residence was prepared for demolition. Existing unit destroyed and placed in roll-off boxes for disposal. USACE activated to appraise existing unit, assist in lodging expenses, per diem and incidentals of relocated family (2 adults) and to locate replacement unit meeting URA standards. Lead OSC also met with FEMA and GSA representatives along with USACE staff to locate manufactured home that would meet specifications and functionality of existing unit. Unit transferred through SF-122 process. Court Order followed (not related to incident) putting stop transfer on all existing FEMA units so USACE had to find replacement unit on open market.

### **Next Steps**

Replacement trailer located and placed on-site through USACE representatives. 104E notification was sent to homeowners for cost recovery purposes. On August 26, 2009, Tetra Tech START member Charles Berry met OSC Williamson, ADEM's Grady Springer, and the homeowners at the residence. A final screening of the personal property was performed prior to releasing the items back into the residents' custody. No items screened above the 10,000 ng/m<sup>3</sup> level; the highest observed reading was 860 ng/m<sup>3</sup>. The items were then returned to the homeowners without condition. The storage box was left on site for another week to allow the residents time to decide which items they wanted to move back into the new mobile home.

### **Key Issues**

- High levels of mercury in primary residence
- The use of existing federal assets for emergency response purposes
- The transfer of federal property to private residents
- Interpretation of the URA as it applies to mercury responses
- The reintroduction of numerous personal items that meet and/or are just below the 10,000 threshold.

(Refer to FINAL REPORT dated September 30, 2009 in "Documents" section)

[response.epa.gov/goodwatermercuryspill](https://response.epa.gov/goodwatermercuryspill)