

October 2, 2013

Mr. Mostafa Mehran
Arkansas Department of Environmental Quality
Hazardous Waste Division
5301 Northshore Drive
North Little Rock, AR 72118-5317

Re: Whirlpool Corporation, Fort Smith, Arkansas

**Response to Arkansas Department of Environmental Quality- Hazardous Waste Division (ADEQ)
Review of Whirlpool Responses to ADEQ comments Regarding 2012/2013 Annual Groundwater
Monitoring Report (GMR) Letter Dated September 20, 2013**

EPA No. ARD042755389

AFIN No. 66-00048

Dear Mr. Mehran:

On behalf of Whirlpool Corporation, ENVIRON International Corporation (ENVIRON) has prepared this written response to your letter dated September 20, 2013. ENVIRON's response follows for each bulleted item.

- **Section 3.2, On-Site Data, 4th Paragraph (June 2013 Groundwater Report):**

There is agreement that the southern plume does not extend beyond the Whirlpool property boundary; however, monitoring wells ITMW-05, ITMW-09 and ITMW-10 each display increasing trends in TCE concentrations (Appendix A, Figures 1, 2, and 3). While it is true that the samples taken since 2007 (seven samples from ITMW-5, six samples from ITMW-9 and three samples from ITMW -1 0) do not appear to fluctuate, the same can be said for almost any set of three (3) to seven (7) consecutive samples from any of the three (3) wells for any given time period. That's why EPA recommends a minimum of eight (8) data points for statistically valid trend analysis. Please include a discussion in the future reports.

ENVIRON Response – Comment noted. Additional data points to establish a statistically valid trend analysis per EPA recommendations will be collected during groundwater sampling events and will be addressed in all future groundwater reports.

- **Figure 5, Source Area Trends (June 2013 Groundwater Report):**

Either the TCE data for the monitoring well MW-25 in the 2013 report is in error or all previous reports are in error. The data points reported in the 2013 report as 103, 136, 100, 140, 270, and 120 µg/l corresponds to previously reported data points of 103, 136, 100, 140, 270, and 120 mg/l. Early reports reported TCE concentrations in milligrams per liter, but recent reports present TCE concentrations in micrograms per liter. It is suspected a conversion error may have occurred while inputting the old data into a new database. As a check, the fall 2013 report data (suspect data points all occurred in the fall) was compared to historical spring and fall TCE concentrations for monitoring monitoring well MW-25. Historically, fall concentrations

are consistently greater than spring concentrations at the site and follow a fairly consistent pattern which roughly correlates to changes in groundwater elevation (Appendix A, Figure 4).

Historical TCE concentrations at monitoring well MW-25 in the spring (red squares) and fall (blue circles) track reasonably well with consistently greater concentrations of TCE in the fall. The data presented in the 2013 report do not match this pattern. Knowing that the data does not match the previous data trends and is consistently different from historical data by a factor of 1000 suggests the data must be in error.

Additionally, Table 2 of the Whirlpool 2011/2012 Annual Ground Water Monitoring Report dated June 28, 2012 clearly states results are in mg/l (milligrams/liter); the same principal applies to the Attachment 3 of the Whirlpool 2010/2011 Annual Ground Water Monitoring Report dated October 11, 2011. Please revise as needed.

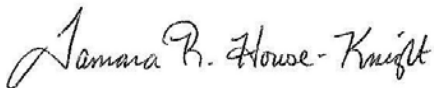
Monitoring wells MW-42 and MW-43 were not included in Table 3 of Environ response dated August 9, 2013.

ENVIRON Response – We appreciate ADEQ’s comment regarding the data reported for monitoring well MW-25 in the 2012-2013 annual groundwater monitoring report. Upon review of the historical database, transcription errors in the data recorded for the six data points for MW-25 were noted and corrected. We completed a detailed review of over 16,000 historical data records for all groundwater wells to assure we had no other similar transcription errors. The errors were limited to MW-25. The data error reported in the 2012-2013 groundwater monitoring report for MW-25 does not impact the modeling or remediation plans previously submitted. We regret the error and appreciate ADEQ’s assistance in calling this issue to our attention.

Monitoring wells MW-42 and MW-43 were damaged sometime between the April 2009 and October 2009 sampling events. The wells were capped and sealed to prevent further damage and are not able to be sampled.¹

We welcome the opportunity to discuss this letter and associated concerns with you at your earliest convenience.

Sincerely,



Tamara R. House-Knight, PhD
Manager/Toxicologist

cc: Ray Gosack – City of Ft Smith
Robert Karwowski – Whirlpool Corporation

¹ Interim Measure Status Report; Whirlpool Corporation, Fort Smith, Arkansas (ERM, 2010)