

Florida Department of
Environmental Protection


Memorandum

SENT VIA EMAIL

Paul.wierzbicki@dep.state.fl.us

To: Paul Wierzbicki
Professional Geologist III
DEP/West Palm Beach

Through: Bryan Baker ^B
Professional Geologist III
Hazardous Waste Regulation

From: Camille Stein 
Environmental Specialist III
Hazardous Waste Regulation

Date: September 28, 2012

Subject: **Site Assessment Report (SAR)** dated June 30, 2011
Meeting Summary from May 10, 2012
Liberty Tile Recycling, LLC (Liberty Tire)

The Hazardous Waste Regulation Section has reviewed the SAR in conjunction with the results of our meeting with the facility and their consultants. We find that SAR is complete for soils and recommend that a Remedial Action Plan (RAP) be requested. We believe confirmatory sampling should be performed at one well to demonstrate groundwater is unaffected (comment #1).

We agree with Liberty Tire's proposed approach; however we recommend that they address the following:

1. Bis-2-ethylhexyl phthalate was detected at a concentration of 43 µg/L in monitoring well MW-7 (located on US Holdings property), 7 times greater than the primary groundwater maximum contaminant level of 6 ug/L. We recognize that this analyte can be a result from well construction materials or laboratory procedures, and not groundwater contamination. Lacking an apparent source, we recommend that Liberty Tire resample this well to confirm the presence or absence of this analyte. If necessary, MW-7 might require re-development to determine whether this is a true environmental result. The results should be

promptly submitted to the Department and a determination made for any additional groundwater assessment. We consider this unlikely.

2. Soil sample GSB-4 contained 480 ppb of total recoverable polyaromatic hydrocarbons (TRPH); a concentration exceeding the residential soil cleanup target level (SCTL). GSB-4 also appears to be on US Holdings Inc. property. Liberty Tire may wish to consider excavating this location to meet the RSCTL; otherwise, the Department will require that Liberty Tire reach agreement with US Holdings Inc. for an Institutional Control on its property.
3. A well survey meeting the requirements of 62-780.600, FAC was not completed and a potable well reportedly exists on the Liberty Tire facility. Based on our knowledge of the region, we don't consider this a reason to delay approval of the SAR. However, Liberty Tire should include a well survey in the RAP, showing the location of all onsite wells (including irrigation, fire, potable, and/or production) on the figures and, provide the pumping rates, frequency, and design details of each.
4. The Department agrees with Liberty Tire's recommendation for confirmatory soil sampling of the excavated soil area. A detailed confirmatory sampling plan that addresses the number of soil samples, locations, analytes, *etc.* should be included in the RAP.
5. Recommendations included a source removal around GSB-3 and GSB-13 to 1'. However, TRPH impacts were identified at GSB-1 (610 ppb) **and** GSB-2 (670 ppb); these concentrations all exceed the RSCTLs. No removal is proposed for these locations and the proposed remedy would be an Institutional Control (IC) for soil and groundwater impacts. An IC is not available when surface water can be affected. In addition, a groundwater use restriction cannot be imposed if potable wells are present. If Liberty Tire wishes to pursue the implementation of an IC, the RAP must provide a demonstration that surface waters will not be affected.
6. High concentrations of zinc have been associated with shredded tires and tire fires. Tire rubber contains about 1.5% zinc as a vulcanization accelerator with the rubber polymer matrix¹. Leaching occurs, but at the same time, it is theorized that the zinc is not very mobile because of changes in pH that also occur during the degradation of shredded tires. GSW-3 had a zinc concentration of 8900 ppb,

¹ Scrap Tires: Handbook on Recycling Applications and Management for the U.S. and Mexico, EPA530-R-10-010 – one of the contributors to this document is Terry Gray.

significantly above levels of concern. The Department recommends that this area be included in any removal action contemplated for GSB-4.

7. To date, hydrologic information provided by Allied Universal Corp. indicates that groundwater typically flows northward from the boundary formed by the drainage swale. Groundwater flow direction identified in the southwest portion of Liberty Tire (May 2011) was southwest. Considering that groundwater may not be affected (see comment #1), this anomaly maybe superfluous, but should be explained if groundwater is determined to be at issue.
8. The recommendation section indicates that the aquifer may qualify for poor-quality aquifer status due to elevated background concentrations. However, no evaluation of background was conducted as part of the investigation and the onsite potable well appears to remain in use. Again, groundwater may not be at issue and background status unnecessary to determine. Should groundwater become an issue, Liberty Tire's neighbor (Allied Universal Corp) has conducted such a study and the information in their reports consulted.

Please contact me at 850-245-8791 or Camille.stein@dep.state.fl.us if you wish to discuss these comments.