

# Georgia Department of Natural Resources

2 Martin Luther King, Jr. Drive, SE, Suite 1462 East, Atlanta, Georgia 30334

Mark Williams, Commissioner

Environmental Protection Division

F. Allen Barnes., Director

Land Protection Branch

404-657-8600

October 4, 2011

**COPY**

## VIA E-MAIL AND REGULAR MAIL

Trust for Benefit of Brenda Heisey and  
Rheem Manufacturing  
c/o Ms. Hollister Hill  
Troutman Sanders, LLP  
600 Peachtree Street, NE, Suite 5200  
Atlanta, Georgia 30305

Re: Comments on Voluntary Remediation Plan and Application dated December 13, 2010  
139 Brampton Road (former Rheem Manufacturing), HSI Site No. 10208  
Savannah, Chatham County, Georgia  
Tax Parcel ID#1-0720-01-002

Dear Ms. Hill:

The Georgia Environmental Protection Division (EPD) has reviewed the Voluntary Remediation Plan (VRP) application dated December 13, 2010 that was submitted pursuant to the Georgia Voluntary Remediation Program Act (the Act) for the referenced property. EPD has noted the following concerns that need to be addressed.

### General Comments:

- 1) In Section 6.2 of the VRP, it is stated that corrective action for groundwater is not needed pursuant to §12-8-107(g)(2) of the Act based on a false argument that the property did not have a release exceeding reportable quantity at the time of listing on the Hazardous Site Inventory (HSI) in 1994. Since this property was listed in 1994 as having a release exceeding a reportable quantity for groundwater, §12-8-107(g)(2) of the Act does not apply; therefore, corrective action for the groundwater pathway must be evaluated. Section 6.2 of the VRP does continue on to indicate that the proposed plan includes delineation of VOCs in groundwater and that compliance will be met through a "point of demonstration" well and/or fate and transport modeling. EPD expects that this groundwater corrective action will be implemented in accordance with the approval letter.
- 2) The proposed plan for soil must also include delineation sampling and analysis for all of the regulated substances listed in Table 3 (Soil Delineation Concentration Criteria). Since the majority of the delineation samples collected from this property were only sampled for lead, additional sampling will be required to ensure that these additional substances are fully delineated and compared to the appropriate risk reduction standards. At that time, the soil excavation plan must be modified to address any areas that are found to be out of compliance.
- 3) In the plan, there is no clearly stated conceptual site model (CSM). Although the plan includes most of the required information, EPD requires that future submittals present and update the CSM as needed to comply with the Act.

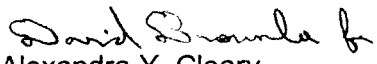
- 4) EPD recommends that some key items (e.g., modeling results) be submitted well in advance of the compliance status report (CSR) submittal to ensure compliance with the Act.
  - 5) Soils samples need to be collected from inside the warehouse areas and analyzed for metals and VOCs. Historical photos show drum storage and/or reconditioning operations in areas that were later covered over by additions to the original structure. These sub slab areas may contain VOC contamination that would contribute to the vapor intrusion pathway.
  - 6) In Section 3.2, Soil Quality Conditions, the following corrections must be noted.
    - a) Acenaphthalene is listed as a regulated substance that was found at the property. The correct substance is acenaphthene (CAS No. 83-32-9). This should also be corrected in Table 3 and Table 4.
    - b) Chloroethene is listed as a regulated substance that was found at the property. The correct substance is chloroethane (CAS # 755-00-3)
    - c) The Table 3 value for acenaphthylene should be revised to show the correct Type 1 soil value of 130,000 µg/kg.
    - d) The correct CAS# for Silver is 7440-22-4.
    - e) Since the site is known to have 1,1,1-trichloroethane and 1,1,2-trichloroethane contamination in soils, 1,4-dioxane must be added to the list of regulated substances to be tested for in future analyses.
  - 7) In Section 3.3, Groundwater Quality Conditions, the correct CAS# for 1,1-dichloroethene is 75-35-4.
  - 8) The plan does not include delineation standards for groundwater. A table indicating these standards must be submitted in the next semiannual progress report.
  - 9) Since the groundwater data included in the plan for this site was collected more than ten years ago, new data must be collected to assess current groundwater conditions. This data must be included in the next semiannual progress report to be submitted by April 30, 2012.
  - 10) In addition, the next semiannual progress report should indicate the status of all wells and confirm that any destroyed wells were properly abandoned. Please note that monitoring wells should be abandoned in accordance with Section 2.8 of the EPA Region 4 Science and Ecosystem Support Division (SESD) Operating Procedure No. SESDGUID-101-R0 (Design and Installation of Monitoring Wells).
  - 11) No point of demonstration (POD) wells were established in the December 2010 VRP application. Please evaluate and specify the POD wells in the next semiannual progress report.
  - 12) A uniform environmental covenant (UEC) must be applied to any properties that cannot achieve compliance with the Types 1 or 2 risk reduction standards. Please refer to the Georgia Uniform Environmental Covenants Act (OCGA 44-16-1) for the requirements of the UEC.
- Risk Reduction Standards:
- 13) The toxicity values of all contaminants must be included in Table 1. The groundwater contaminants listed in Table 2 were not included. In addition, the Regional Screening Level (RSL) Table was updated in June 2011. The current version of the RSL table must be used for all calculations. For mercury, you must use the toxicity data for elemental

mercury rather than inorganic salts of mercury since the former has an inhalation toxicity value which needs to be incorporated.

- 14) The Type 2 and 4 Groundwater RRS in Table 2 for Vinyl Chloride and Mercury (elemental) must be revised based on the correct toxicity data. In addition, the default inhalation rate for adult resident (IRa) should be 15m<sup>3</sup>/day instead of 20m<sup>3</sup>/day. This revision will result in a slightly higher risk-based value. Furthermore, please provide justification for the use of K=0.25L/m<sup>3</sup> and ingestion rate of water (IRw) of 0.08L/day for the construction worker, as these values differ substantially from default values provided in Table 3 of the Rules for Hazardous Site Response (391-3-19).
- 15) The RRS values for acetone were not provided in Tables 5, 6 and 7. Values for acetone must be included.
- 16) An explanation must be provided on how the Type 2 RRS for Lead (420mg/kg) was developed in Table 5. The Type 2 and 4 RRS evaluation for Lead must include an Integrated Exposure Uptake Biokinetic Model (IEUBK) and Georgia Adult Lead Model (GALM) respectively. The model input and output parameters must be provided for review.
- 17) Chloroethane was included in Table 7 but not in Table 3. The necessary data must be included in Table 3.
- 18) EPD is unable to verify the leachability values in tables 5, 6 and 7. Revisions must provide a separate table indicating how the leachability values were derived. The table must include all model equations, input parameters, groundwater criteria and final leachability value. EPD cannot approve Type 2 and 4 RRS values that are based on leachability values unless these values can be verified by EPD.
- 19) The plan did not propose any risk reduction standards for groundwater. Groundwater must eventually be certified to applicable cleanup standards in accordance with Section 12-8-107(e) of the Act.

The above comments must be addressed to EPD's satisfaction in order to demonstrate compliance with the provisions, purposes, standards and policies of the Act. EPD may, at its sole discretion, review and comment on documents submitted by the Trust and Rheem. However, failure of EPD to respond to a submittal within any timeframe does not relieve the Trust and Rheem from complying with the provisions, purposes, standards, and policies of the Act. Should you have any question or concerns, please contact Mr. Bill Williams of the Response and Remediation Program at (404) 657-7126.

Sincerely,

  
Alexandra Y. Cleary  
Program Manager  
Response and Remediation Program

c: Charles Ferry, MACTEC

File: HSI #10208