



RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

file

25 July 2005

Ed Summerly
GZA GeoEnvironmental, Inc.
140 Broadway
Providence, Rhode Island 02903

Re: Charbert, Division of NFA
Phase II Site Investigation
Prepared by GZA dated 2 June 2005


Dear Mr. Summerly;

The Rhode Island Department of Environmental Management, Office of Waste Management (RIDEM) has conducted a review of the above referenced documents regarding the Charbert facility in Alton, Rhode Island. As a result of this review, we have generated the attached comments. Please provide the RIDEM with a response to these comments as soon as possible. Upon receipt of a satisfactory response to these comments RIDEM shall issue an Interim Program Letter (IPL) for the overburden portion of the site investigation. Within 30 days of the Respondents receipt of the IPL on the Site Investigation Report (SIR), the Respondent shall publish/provide public notice of availability of the SIR and a 30-day public comment period as noted in the Consent Agreement (CA). Upon satisfactory response to any public comments received, the RIDEM issue an Interim Remedial Decision Letter (IRDL) for the overburden portion of the site investigation.

The CA also states that within thirty days following RIDEM approval of the SIR (issuance of the IRDL), the Respondent shall submit a proposal to RIDEM that includes a bedrock aquifer investigation. This investigation must characterize any contaminants present in the bedrock aquifer that are related to the site based on the findings and results of the SIR. The SIR report repeatedly infers that data collected as part of the SIR does not indicate non-aqueous phase liquid impact to the bedrock aquifer. The RIDEM does not believe that enough data exists to make these statements and that data collected indicates at a minimum, a potential dissolved phase impact to the bedrock aquifer. As such, RIDEM requires that, in accordance with the Consent Agreement, a bedrock aquifer investigation work plan be submitted within 30 days of the RIDEMs issuance of the Interim Remedial Decision Letter. Please be advised that RIDEM shall only issue a final remedial action approval for the entire site after satisfactory completion of the bedrock aquifer investigation and, if necessary, bedrock aquifer remedial action.

We look forward to continuing to work with you to address these issues as we move forward. If you have any questions or require additional information please call me at my telephone (401) 222-2797 ext. 7150 or by e-mail at jill.eastman@dem.ri.gov

Sincerely,


Jill Eastman
Environmental Scientist
Office of Waste Management

Cc: M. DeStefano, RIDEM-OWM
C. Gianfrancesco, RIDEM-OWM
D. Chopy, RIDEM-OCI
M. Healy, Charbert
J. Anderson, Richmond Town Council
Clark Memorial Library Repository

General Comments to June 2005 Charbert Phase II Site Investigation

1. General Comment

As stated in the Consent Agreement Section 4 (u): *Within thirty (30) days following RIDEM approval of the SIR, the Respondent shall submit a proposal to RIDEM that includes a bedrock aquifer investigation that characterizes any contaminants present in the bedrock aquifer that are related to the site that is based on the findings and results of the SIR. The proposal must include a schedule for completion of the work. Interim steps, including potential remedial actions proposed in the SIR, may be conducted prior to completion of the bedrock aquifer investigation; however, these steps must be consistent with the likely final site remedy and not preclude or impede future actions that may be required pursuant to the bedrock aquifer investigation. DEM shall only issue a final remedial action approval for the entire site after satisfactory completion of the bedrock aquifer investigation.*

Upon satisfactory response to these comments and responses to public comments for the SIR, the RIDEM will issue an Interim Remedial Decision Letter for the Phase II SIR, at which time the 30-day clock will start for the bedrock investigation.

2. General Comment

As previously stated in the GZA Proposed Scope of Work (SOW)-Revised dated 22 December 2004 (Page 2, ¶1) The SOW indicates that at the conclusion of the SIR, Charbert will have enough information to establish the presence and extent of remedial objective exceedences in soil in the source areas (i.e. former Underground Storage Tank areas and spill areas etc...). Thorough delineation of the horizontal and vertical extent of soil and sediment contamination in these areas must be completed as part of the SIR or Remedial Action Work Plan (RAWP). In addition, please clarify on Figure 3 what the shaded areas are and that they are approximate.

3. General Comment

Nomenclature for Tables, Figures, boring logs do not match. Please be consistent.

4. General Comment

Because source sampling revealed contamination near lagoon 5/old lagoon, specifically a combination of high levels of Total Petroleum Hydrocarbon (TPH) and perchloroethene (PCE), more testing will be necessary to fully characterize this area. As stated in GZA Responses to RIDEM 's Comments from the SIWP dated 22 December 2004, more testing can be done prior to or can be incorporated into the remedial design investigation.

5. Table 17- The notes for this table state that yellow and bolded results are above the Method Detection Limit (MDL). It appears that the results that exceed the 'Standard (PALs)' (Preventative Action Limits) are yellow and bold. If this is the case, please clarify and also add a highlight for the barium results from the pump house.
6. Figure 2- There is no reference in the legend for the yellow shading. Please add this to legend.
7. Figures 4 & 5- Please provide legends in both figures.
8. Figures 10-15- Please provide sample dates for the results reported on these figures.
9. Figure 10- Please provide additional information in the legend for oil line and existing sewer force main.
10. Figure 11- Two data points for CB-1 are shown on this figure. One of them is pointing to GP-24. Please clarify. In addition, PALs for chromium for CB-1 were left blank.
11. Appendix E-Time Series Plots- Please note that the legends do not correlate with the graph. Some detects are bold (orange not black) and some detects are incorrectly marked ND. Please revise accordingly.

Address the following Specific Comments regarding the SIR:

12. Section 2.6.1- Wastewater Disposal System, Page 5- Information regarding the discharge of groundwater at 1800 gallons (gal) per minute from two pumps compared to the 250,000 gal of groundwater per day total doesn't add up. 180 gal per minute would be closer to 250,000 gal per day. Please verify these numbers.
13. Section 2.80-Sanitary Sewer System, Page 9- This section does not clarify whether the 'colored water' was similar to the purple tinted water found in previous groundwater samples collected from RIZ-14. If they were similar, please provide information on RIZ-14 and potential impact from the lagoons or both the lagoons and the failed Individual Sewage and Disposal System (ISDS). This section states that tinted water originated from the dye room. Please provide information regarding reporting this incident to either the Underground Injection Control (UIC) or ISDS departments.

Complete an investigation of this potential source area (former leach field and associated piping) to determine if groundwater contamination is coming from the lagoons/process water or the leach field and/or it's associated piping.

14. Section 2.80-Sanitary Sewer System, Page 9- In addition to ISDS and OCI, please notify OWM when the floor drains are no longer discharging to the sanitary sewer system and the new sanitary sewer system is on-line.

5. Section 2.11.1-Underground Storage Tanks, Page 11- Due to the fact that no confirmatory soil samples were collected during the removal of the waste oil tank, please be advised that further investigation of this area is necessary.
16. Section 3.3-Public Water Supplies, Page 15- Please specify which Wellhead Protection Area (WPHA) the site is located in.
17. Section 3.40 Groundwater Classification/Quality, Page 15- RIDEM no longer uses GA-NA classification per the revised Rules and Regulations for Groundwater Quality March 2005. The lower portion of the site is now classified as GA.
18. Section 4.40-Soil Sampling, Page 18 and Table 5- This section states that sample selection was based upon screening results, visual and olfactory evidence. Table 5 shows that soil samples were collected from sections of soil borings that either did not exhibit the highest Flame Ionization Detector (FID) reading, or in some cases had the lowest reading or not detected (ND). Please clarify how the field screening and subsequent sample selections were conducted and provide rationale as to the criteria used to select soil samples.

Furthermore, please verify that well screens were placed in the areas of highest possible contamination according to the field screening results, and if they were not, please provide an explanation for the selected placement.
19. Section 5.10-Site Geology, Page 22- Please be more specific regarding GZA 'geologic mapping and other work in the area' (i.e. how it relates to the site, confirm information with on-site borings).
20. Section 5.4.1- Groundwater Elevations and Fluctuations, Page 26- This section refers to 8 deep aquifer wells. RIDEM is unable to determine which wells are being referenced since only 4 were installed in July 2004. Please clarify.
21. Section 6.10-Analytical Testing, Page 32- Due to the fact that the site does not currently have an Environmental Land Use Restriction on it, the RIDEM Residential Direct Exposure Criteria must be cited here and throughout the report.
22. Section 6.21- Subsurface Soils, Page 33- Please see comment #18.
23. Section 6.21.1-VOCs in Subsurface Soils, Page 34- Please be advised that due to the selection of the depth of the samples collected for analysis vs. the soil depth of possible contamination via field screening detections, RIDEM is reluctant to concur with any conclusions as to where contamination exists without at least a further explanation. In several occasions, it appears that samples were not collected from the appropriate depth to make a sound conclusion. (See comment #18)

24. Section 6.33- VOCs in Groundwater, Page 40, ¶1- RIDEM strongly disagrees with the statement: *"The combined evaluation of the soil and groundwater results provide no indication that dense non-aqueous phase liquids (DNAPLs) are present or have migrated to a significant depth within the aquifer"*. The term 'significant depth' is ambiguous. 3 of the 4 deep wells had VOCs detected in samples taken from the deepest section of the well. RIDEM believes the conclusions should be revised to state that bedrock information is lacking at this time and contamination at depths greater than the 'deep wells' is still unknown.
25. Section 6.33.1-VOC Distribution in Groundwater, Page 41- In addition to the secondary release to lagoons from contaminants that have been drawn into the process water supply well hypothesis for the fourth potential source, the failed ISDS galleys and associated piping are also a potential source. If the ISDS was shown on the isopleth maps it would show the system running right through the contaminated groundwater area. Per comment #13, the ISDS galleys and associated piping must be further investigated.
26. Section 6.37-Water Quality Parameters, Page 43, ¶2- RIDEM does not have Maximum Contaminant Levels (MCL's) for drinking water. Please clarify that the Rhode Island Department of Health (RIDOH) regulates MCL's.
27. Section 6.38-Residential Well Results, Page 45, ¶from previous page- Please clarify that the treated water referenced in this section meets EPA's drinking water standards for those compounds that have a standard. Not all compounds analyzed for have an EPA standard.
28. Section 6.39-Underground Injection Control (UIC) Program Testing, Page 45- Comments pertaining to the UIC permit and lagoons will be addressed directly by the RIDEM UIC program.
29. Section 7.00-Summary and Conclusions, Page 51, 1st bullet- RIDEM does not agree that enough data exists to make this statement. The first bullet states that no DNAPL or LNAPL are present or have migrated to significant depth within the aquifer. The data indicates, however, that PCE and breakdown products to significant depths and may be impacting the bedrock aquifer. Please clarify or revise this statement accordingly.
30. Section 8.00 -Development of Remedial Alternatives, Page 51- RIDEM does agree that the sources of contamination have been generally delineated. As per the GZA response to RIDEM's comments on the Proposed Scope of Work Phase II Subsurface Investigation dated 22 December 2004: *If contaminant levels are found through laboratory testing, the issue will be addressed as part of the Remedial Action Plan phase project as a Limited Design Evaluation (LDE)*. RIDEM expects further characterization of the contamination found near the "Former Lagoon" and Wood River to be part of the LDE.

31. Section 8.00 –Development of Remedial Alternatives, Page 53, 14- If leaving soil contaminated with petroleum hydrocarbon is to be left on site, please be advised that it will probably require an appropriate engineered cap.
32. Section 8.00 –Development of Remedial Alternatives, Page 55, E- Please be advised that RIDEM will require a minimum number of confirmatory laboratory analyzed soil samples in addition to Photoionization Detector (PID) screening.