

STATE OF MICHIGAN



JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY*"Better Service for a Better Environment"*

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RUSSELL J. HARDING, Director

March 29, 2001

Ms. Cheryl R. Hiatt
Remediation and Liability Management Company, Inc
MC 482-310-004
485 West Milwaukee
Detroit, Michigan 48202

Dear Ms. Hiatt:

SUBJECT: Draft Resource Conservation and Recovery Act Facility Investigation (RFI) Report,
Former Peregrine, U.S. Inc., Coldwater Road Facility; Flint
MIR 000 020 743

The Department of Environmental Quality (DEQ), Waste Management Division (WMD) has completed a review of the draft RFI Report submitted for the subject facility. Based on this review, we have the following comments. Please address these comments prior to the submittal of the final RFI Report.

1. **Section 1.4, RFI Strategy**
Please be aware that the use of Industrial Criteria limits the future zoning of the land to industrial and any change to that zoning may require additional investigation/remediation activities.
2. **Section 2.2, Surrounding Land Use**
A copy of the Genesee Township zoning ordinance must be provided in the RFI Report in order to confirm the associated land uses for each land use zoning classification.
3. **Section 4.3.2, Former Scrap Metal Storage Area Investigation (AOI 8)**
The proposed soil investigation presented in the RFI Work Plan indicated that soil samples would be collected "either through or immediately adjacent to" the five storage pits (8'x10'x10' deep) present in the area. The RFI Report indicates that none of the five borings were placed through the former sump locations, and no discussion was provided regarding why the borings were not placed through the pit bottoms where contamination might be expected to be present. In addition, it is not clear from the RFI Report where the borings were placed in relation to the storage pits. Additional justification and or discussion of sample location criteria must be provided in the RFI Report.
4. **Section 4.3.3, Former Chrome Plating Area Investigation (AOI 9)**
No samples were collected immediately adjacent to the location of historical sample K-35 where significant exceedances were noted. This type of situation may be true at other Areas of Interest (AOI) as well. The facility must incorporate historical data into the characterization of each AOI.
5. **Section 4.3.10, Former Press Room Investigation (AOI 19)**
The proposed soil investigation presented in the RFI Work Plan indicated that the AOI had several miscellaneous sumps and pits present (depths not defined) that were presumably the main reason for concern in the area. No discussion was provided in the RFI Report

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regarding why the borings were not placed through the sump or pit bottoms where contamination might be expected to be present. In addition, it was not clear from the RFI Report where the borings were placed in relation to the sumps or pits. Additional justification and or discussion of sample location criteria must be provided.

6. **Section 5.0, RFI Results, General**

Only one round of groundwater sampling was conducted for the RFI. In addition, some wells where previous exceedances were noted (historical investigations) were dry when sampling was attempted during the RFI. Additional monitoring may be required as part of the Corrective Measures Study (CMS) at monitoring well locations where exceedances have been noted in previous investigations.

7. **Section 5.0, RFI Results, General**

The reason for the relatively high number of elevated detection limits and "estimated" results must be explained in the text.

8. **Section 5.2, Groundwater Use Inventory**

Previous investigations related to the closure/landfill construction to the north revealed significantly more residential groundwater wells in the vicinity of the site. An additional well record search, incorporating records from previous investigations, the local health department, the DEQ Drinking Water and Radiological Protection Division (DWRPD), and any other applicable source must be conducted. In addition, the radial distance to be searched from the plant boundary must be expanded to 1.5 miles. Local groundwater use information will become very important in evaluating potential exposure via the groundwater pathway at the site.

9. **Section 5.3.3.1, Groundwater Not In An Aquifer (GWNIAA) Evaluation**

The demonstration for GWNIAA provided in the RFI Report is not adequate. The information presented must adhere to the recommendations of the May 4, 2000 WMD Guidance Document. The demonstration of GWNIAA at this site will need to be very conclusive due to the local use of the drift aquifer as a potable water source in the vicinity of the site. An alternative approach of implementing site-specific deed restrictions regarding impacted areas of groundwater in the perched zone may be more appropriate at this site.

If the facility wishes to proceed with the GWNIAA determination, then additional information is required. A significant amount of information was collected during the RFI; however, it is not summarized and presented as recommended in the GWNIAA Guidance Document. In addition, a significant amount of potentially applicable information was collected and evaluated by General Motors as part of the closure/landfill construction project completed north of the plant. Additional information (or a more focused presentation of existing data) that may be required includes the following:

- Cross-Sections mapping the contacts between the perched zone, the upper till, and the overburden water bearing unit (Drift Aquifer).
- Groundwater elevation data from both the perched zone and the drift aquifer supporting hydraulic isolation.
- Location of utility corridors, foundations, tunnels, sumps, and other structures that may be important in hydraulic communication between the two units. This is especially important with respect to foundations, sumps, etc. related to the basement of the plant building.

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- Contact with local health department and the DEQ, DWRPD verifying conditions required in guidance.
- Additional information on groundwater use per Comment Number 8 above.
- A pump-test to conclusively demonstrate the lack of hydraulic communication between the two units.
- Additional information demonstrating the insignificant yield of the perched zone per guidance document recommendations.
- Analytical groundwater monitoring data from the Drift Aquifer to demonstrate/verify it has not been impacted as a result of on-site activities.

10. Section 5.3.4, Hydrology

The presence of Hughes drain and the surface water bodies associated with the constructed wetlands for the closure/landfill construction project to the north were not mentioned in this evaluation. These are the closest surface water bodies present to the site and their presence and impact on site hydrology must be discussed.

11. Section 5.3.5.1, Former Waste Pile Pad (AOI 2) Results

Arsenic in BH-2-3-00 is present at a concentration of 61,000 ug/kg. This concentration is equal to the industrial direct contact criteria (IDCC). The fact that samples from surrounding borings displayed much lower arsenic concentrations is indicative of an arsenic hotspot. The extent of contamination associated with this area of elevated arsenic concentration must be defined.

12. Section 5.5.1, Evaluation of DEQ SVIAC Exceedances

The RFI Report states that the Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC) pathway is incomplete due to the presence of the concrete slab. However, if the facility is sold there is no guarantee that future owners will retain the concrete slab. Therefore, the pathway must be evaluated and the extent of contamination associated with the SVIAC exceedance must be defined. If the concrete slab is left in place as an engineered control barrier, a deed restriction will be required.

13. Section 5.5.2, Evaluation of DEQ PSIC Exceedances

Comment 12 above applies also to Particulate Soil Inhalation Criteria Exceedances.

14. Section 5.5.3, Evaluation of IDWPC Exceedances

As discussed in Comment 10 above, the GWNIAA demonstration provided is inadequate. Until such time that a satisfactory GWNIAA demonstration is approved by the WMD or other site-specific restrictions are implemented, the extent of contamination associated with the exceedances must be defined and the pathway evaluated.

15. Section 6.0, Preliminary Risk Evaluation

The Preliminary Risk Evaluation (PRE) was undertaken to assess the potential risk to human health posed by arsenic and lead impacted soils at AOI 9 and AOI 11.

a) Observation of the analytical soil data for AOI 9, Table 5.8, showed that only one sample (BH-9-26-00) exceeded the Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, Industrial Direct Contact Criteria (DCC) for lead, which is 900 ppm. Lead was detected at a concentration of 28,100 ppm, which is over 31 times the criteria.

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b) Observation of the analytical soil data for AOI 11, Table 5.9, showed that only one sample (BH-11-1-00) exceeded the Part 201 Industrial DCC for arsenic, which is 61 ppm. Arsenic was detected at a concentration of 131 ppm, which is over twice the criteria.

Based upon the previous findings, it can be concluded that these two samples represent significantly elevated areas for lead (BH-9-26-00) and arsenic (BH-11-1-00) and are not consistent with other sample concentrations found in their respective exposure areas. Therefore, these two samples, BH-9-26-00 and BH-11-1-00, represent hot spots for lead and arsenic respectively, and should be addressed separately and not included in calculation of the 95 percent upper confidence limit, which has been proposed in the PRE. Please see the DEQ Environmental Response Division's Part 201 Generic Soil Direct Contact Criteria Technical Support Document for further guidance.

Further delineation of the lead and arsenic hot spots is necessary. Following proper delineation, remediation, or removal of the soils found to exceed the Part 201 DCC is recommended. Exposure controls and land use restrictions may be employed to prevent exposures under the limited land use category.

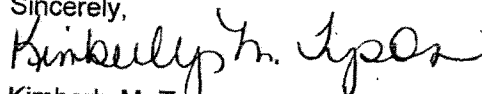
Also, analysis of the analytical soil data for AOI 2, Table 5.6, showed an arsenic concentration equal to the Part 201 DCC for arsenic in borehole BH-2-3-00. Concentrations at or approaching applicable Part 201 criteria may pose a risk to human health. This sample is not consistent with other sample concentrations found in this exposure area, and because it is so much higher than other sample concentrations detected in this exposure area, it should also be considered a potential hotspot. Further delineation in this area is recommended.

16. Section 6.0, Preliminary Risk Evaluation

As noted in comments 12 through 15 above, there are additional pathways present at the site that must be addressed in this section, although it is not clear that this exercise is required at this point in the investigation. Should a risk evaluation ultimately be included as part of the final RFI Report, the data utilized must be collected on a random basis, as opposed to the biased sampling done to date. Also, hotspots must be delineated and removed from the data set prior to performing the statistical manipulations used in risk evaluations.

If you have any questions regarding this letter, please contact me.

Sincerely,



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Environmental Engineer
Hazardous Waste Program Section
Waste Management Division
517-373-2487

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cc: Ms. De Montgomery, DEQ
Ms. Amy Brumm, DEQ
Mr. Kelvin Holdwick, DEQ
Mr. Joseph Rogers, DEQ
Mr. John McCabe, DEQ
Corrective Action File