Georgia Department of Natural Resources

Environmental Protection Division-Land Protection Branch

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Judson H. Turner, Director

May 22, 2014

FILE COPY

VIA E-MAIL AND REGULAR MAIL

Trademark Metals Recycling, LLC
c/o Ms. Brenda Anderson, Environmental Manager
5220 Dover Street
Tampa, FL 33606

Re: March 7-8, 2013 Voluntary Investigation and Remediation Plan and Voluntary Remediation Program Application
Trademark Metals Recycling (*f/k/a* Rice Metal and Iron), HSI #10923/VRP1348601340
2000 West Savannah Avenue
Valdosta, Lowndes County, Georgia 31603
Tax Parcel 0121A 026

Dear Ms. Anderson:

The Georgia Environmental Protection Division (EPD) has reviewed the subject submittals pursuant to the Georgia Voluntary Remediation Program Act (the VRP Act), as applicable, for the subject property parcel, which is listed on the Georgia Hazardous Sites Inventory (HSI) as HSI 10923. EPD has the following comments on the subject submittals which may assist you in achieving specific investigation and cleanup milestones required pursuant to the VRP Act and program, including submittal of a final Compliance Status Report (CSR) by no later than April 18, 2019. A separate response to these comments is not required. However, EPD recommends that the participant re-evaluate the investigation and corrective action plans proposed in the VIRP to ensure that said comments are addressed and sufficient data is acquired to ensure the required VRP delineation milestones and CSR submittal dates are complied with.

Application/Checklist:

1. EPD noted that there is an apparent discrepancy between the acreage listed for the participating property on the warranty deed (30.81 acres or 32.16 acres in Exhibit A) provided in Appendix C of the VIRP and that listed on the application and in current county tax records (27.57 acres). Please provide clarification regarding the apparent discrepancy.

Conceptual Site Model (CSM):

2. Regulated Substances Released/Contaminants of Concern (COCs): All *regulated* substances listed in Appendix I of the Rules detected in any environmental media of concern at concentrations exceeding *naturally-occurring* background levels, and *regulated* degradation products, such as 1,1-dichloroethene and *trans*-1,2-dichlorethene, are considered to be constituents of concern (COCs). Those COCs are subject to delineation and cleanup requirements pursuant to the Act until it can be demonstrated that specific substances do not contribute to unacceptable exposure to Site receptors. Further note:
   a. Analytical detection limits, as defined in §391-3-19-.02(2)(d) of the Rules, are assumed to be representative of background concentrations for COCs unless site-specific background levels have been established through analysis of samples.
   b. PCBs are regulated by the Rules as specific individual Aroclor mixtures (*a.k.a.* PCBs 1016 through 1260), the individual dioxin-like PCB congeners, and as "total PCBs" with corresponding delineation and cleanup standards. Evaluation of the nature and extent of and determination of delineation and cleanup standards for PCBs must be based on analysis of: 1) Aroclors, 2) "total" PCBs (sum of concentrations of non-dioxin-like PCBs), and 3) 12 individual dioxin-like PCB congeners, which have relatively low Type 1 through Type 4 RRS, in all environmental media of concern at the Site. Note that the non-detection of Aroclors in an environmental sample does not necessarily correlate with the absence of all PCB congeners, nor do detected Aroclor concentrations reflect their relative concentrations if present. Therefore soil samples should be collected and analyzed for the 209 individual congeners in Source Area 3 where Aroclors 1016 and 1242 were detected in soil. Furthermore, other potential regulated PCB cross contaminants or byproducts such as polychlorinated dibenzofurans (PCDFs) and

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dibenzodioxins (PCDDs) should also be evaluated as potential COCs where Aroclors have been or are detected during historical and future investigations.

3. Figures 6 and 7 are labeled as conceptual site models. However, EPD considers all figures, cross-sections, and tables provided in the VIRP to be part of the CSM that must be provided in future submittals.
4. Soil, Groundwater, Surface Water, and Sediment Conditions:
   a. Tables and Figures:
      i. Please provide the following additional tables as part of the CSM in future VRP submittals:
         - Well construction summary table, which should include: 1) the top of well casing elevations relative to mean sea level (or a temporary benchmark which can be measured relative to mean sea level at a later date if necessary), 2) screened interval depths and elevations, and 3) aquifer zone (by aquifer name or relative depth in a single aquifer) monitored. It appears that the top of casings for several monitoring wells were not determined during past investigations.
         - A tabulated historical summary of groundwater depth and elevation measurements used to construct future potentiometric surface maps.
         - A figure summarizing soil sample analytical results in tabular format adjacent to the sampling locations.
      ii. Figures summarizing analytical results for environmental samples must include all analytical results, including non-detections and detections less than delineation or cleanup standards, for COCs. Figures 5 and 8, which summarize groundwater analytical results, do not include ***all*** groundwater analytical results for the same sampling event.
      iii. Potentiometric surface maps must be drawn based on groundwater elevations measured in monitoring wells screened across, or near, the water table across the entire site. This is of particular concern since the potentiometric surface map provided in the VIRP only uses groundwater elevations measured in monitoring wells MW-1 through MW-3 in the north central portion of the subject Property even though impact to groundwater was also observed in the southeastern quadrant. Said information is necessary to determine average hydraulic gradients, etc. used in groundwater contaminant fate and transport modeling in the future, if necessary. Further note, in general, a single contour line does not define groundwater flow direction; therefore, contour intervals for potentiometric surface maps should be selected to result in more than one contour line on which to base groundwater flow direction in the future.
      iv. Boring logs must be submitted for all borings/monitoring wells advanced at the site in support of the stratigraphy depicted on cross-sections in future submittals. Furthermore, monitoring well diagrams should also be provided. To date, neither boring logs nor monitoring well diagrams have been submitted to EPD.
      v. Cross-Sections:
         - A ***minimum*** of two cross-sections, one oriented parallel and one oriented perpendicular to groundwater flow and intersecting in at least one source area, must be provided as part of the CSM in future submittals. EPD recommends that two additional cross-sections be constructed from east to west intersecting the cross-section provided as Figure 4 in the VIRP at monitoring wells MW-1 and MW-5.
         - Cross-sections must be drawn to scale with the vertical and horizontal scales depicted using scale bars, and should include the following information:
           - Source areas,
           - Water table conditions, across the site as determined from the most recently measured groundwater elevations,
           - Water supply wells,
           - Aquitards,
           - POEs and POD well locations,
           - Stratigraphic information from ***all*** soil, groundwater, and surface water sampling locations along, or immediately adjacent to, the plane of cross-section should also be shown. Soil boring/sampling locations not converted to monitoring wells were not depicted on the cross-section in the VIRP,
           - Soil sampling locations/intervals and analytical results should be depicted,
   b. Contaminant Source(s): ***Potential*** contaminant source areas must be investigated based on observations made by EPD during the site inspection in March 2012. At a minimum, soil conditions must be investigated in the following areas for all COCs:
      i. Cleared Area near the Southern Property Boundary: Although interviews with past property owners

indicated the circular area cleared of trees on the southern edge of the Property, was not used for metal recovery/recycling operations prior to the applicant's acquisition of the property, it must be verified through the analysis of soil samples.

ii. Vegetated Areas, Eastern Half of Property: EPD's observation of the eastern half of the Property currently covered with trees indicate it was used during former operations, including a storage area, prior to the applicant's acquisition (see attached narrative and Photographs #24 through #27 in the attached Trip Report) and other visual observations (vehicle ruts, metal debris, etc.).

5. COC Delineation:
   a. The participant may utilize the onsite water supply wells as monitoring locations for vertical delineation of groundwater contamination if: 1) they are accessible and are located appropriately in relation to confirmed source areas, and 2) if sufficient well construction information is available for determining the producing aquifer and depth interval.
   b. Analytical results from a *minimum* of two monitoring events at the site will be necessary to demonstrate achievement of delineation, and/or compliance with cleanup standards, in groundwater.
   c. Please note the following when determining if, and where, additional investigation is necessary to achieve delineation:
      i. Delineation of soil or groundwater contamination can only be demonstrated if the sample locations where COCs were detected at concentrations greater than delineation standards are surrounded by sample results with concentrations less than standards.
      ii. Soil contamination must be delineated above the water table where detected above delineation standards or groundwater must be sampled and analyzed at those location(s), or *immediately* downgradient, for said purpose.
6. Hydrogeologic Characteristics: Hydraulic gradients, hydraulic conductivity and other aquifer characteristics to be used in groundwater modeling were not specified in the VIRP. Those values must be determined through field testing and/or acquired from published sources as appropriate, and submitted to EPD with a description of how said values were determined (*e.g.*, slug tests, pumping tests, *etc.*). Those values are needed by October 18, 2016 when the final updated site CSM and remediation plan are due.
7. Potential Receptors/Exposure Pathways/Exposure Domains:
   a. Figure(s): A scaled map or aerial photograph depicting *all* exposure domains and points of exposure (POEs), current and future, for all potentially complete contaminant exposure pathways must be provided to EPD. That figure must show the nearest water wells and the nearest surface water bodies within and 1,000 ft of the extent of groundwater contamination. According to online National Wetlands Inventory (NWI) maps indicate the surface water body on the qualifying Property and immediately south are designated wetlands, which could be potential receptors for contamination at the site.[1]
   b. Human:
      - Potential additional source areas must be investigated (see Comment 5) before EPD can evaluate, and potentially concur with, conclusions regarding potential human exposure to contaminated soil. EPD noted during the site inspection of March 2012 evidence of trespassers along the eastern property boundary where fencing has been breached and electronic surveillance is not available. In addition, the southern property line is not fenced.
      - Section 2.4 of the VIRP indicates that only the area east of the site has residential use. EPD observed residential properties with private water wells less than ½-mile to the southwest, hydraulically downgradient of the Property. That should be noted when evaluating potential human POEs. The locations of nearby drinking water supply wells and their screened or open-hole depths should be verified, including a door-to-door

[1] A copy of the trip report for the EPD site inspection conducted on March 8, 2012 is provided as an attachment to this letter to assist the participant in identifying potential receptors and POEs for the release of regulated substances at the subject Property. The trip report includes: 1) a copy of a portion of the NWI map showing designated wetlands in the area of the subject site, 2) a discussion, and photographs, regarding local water wells field verified by EPD personnel, and 3) photographs documenting conditions at the subject and adjacent properties. In addition, a map showing all known water wells in the EPD database, at the time of site listing on the HSI, within three miles of the subject Property boundaries is also attached. EPD also suggests that the local environmental health department be contacted regarding local well records they may maintain for public review. Publically available well records *cannot* be the sole source of information for completion of the well survey as they do not include all domestic wells currently in use in Georgia.

reconnaissance for drinking water wells. Note that some of the wells are producing from depths as shallow as 80 to 90 ft, within 1,000 ft of the groundwater contaminant plume.

Investigation and Remediation Plan

8. Delineation Criteria and Standards:
   a. Soil and Groundwater:
      i. The applicant must select soil and groundwater delineation criterion that are consistent with §12-8-108(1)(A) through (E) of the Act and propose the appropriate standards (values) accordingly for EPD review and concurrence. Proposed delineation standards for *all* COCs, which may not be listed on Tables 1 and 2 of Appendix III of the Rules, should be summarized in tabular format with notations regarding the criterion used in selecting them for EPD review.
      ii. EPD recommends that the participant submit proposed delineation standards to EPD prior to submittal of the second VRP semi-annual progress report in which it must be demonstrated that horizontal delineation of contamination within the boundaries of the qualifying property has been achieved. Note that since soil and groundwater delineation standards cannot exceed default, residential cleanup standards [Type 1 Risk Reduction Standards (RRS)], the participant must submit proposed Type 1 RRS values for soil and groundwater for EPD review and concurrence before values based on other acceptable criteria can be evaluated.
   b. Surface Water and Sediment: COC delineation standards for COCs in surface water and sediment will be ambient or anthropogenic background levels based on detection limits as defined in §391-3-19-.02(2)(d) of the Rules *or* analytical results from a representative number of samples collected in locations not impacted by Site operations.
9. Cleanup Criteria and Standards: The participant must determine appropriate soil and groundwater Type 1 through 4 RRS, as applicable based on property usage, and submit them for EPD review and concurrence. EPD recommends that the participant obtain EPD written approval of cleanup standards prior to submittal of the final remediation plan. Please note the following:
   a. Each of Type 1 through 4 RRS has its own individual values for each COC soil and groundwater. The participant may choose to apply the highest values between Type 1 and 2 RRS as general residential RRS (Type 1/2 RRS) or the highest values between Type 3 and 4 RRS (Type 3/4 RRS) as general non-residential RRS.
   b. The participant may apply residential RRS as cleanup standards to properties with non-residential use, but the reverse is not acceptable. Cleanup standards must be proposed for *each* Site property based on current and/or anticipated future use.
   c. Property owner concurrence must be acquired for the application of cleanup standards other than residential RRS. In addition, application of non-residential RRS or other *site-specific* standards as cleanup standards for a specific property will require: 1) a demonstration that application of said standards will not result in unacceptable risks to downgradient receptors or result in non-compliance with applicable cleanup standards on downgradient properties, and 2) ongoing certification of non-residential usage and implementation of an environmental covenant restricting current and future property usage, for those properties in compliance with Type 3/4 RRS but not in compliance with Type 1/2 RRS. For those properties not in compliance with applicable Type 1 through 4 RRS, VRP site-specific cleanup standards may be appropriate. However, an environmental covenant must be implemented
10. Proposed Additional Investigation and Corrective Actions: EPD recommends that the participant re-evaluate the locations for proposed monitoring wells to be installed in an attempt to delineate groundwater contamination and re-locate them as necessary based on revised potentiometric surface maps and estimated groundwater flow direction(s) using groundwater elevations from all onsite wells screened across the water table (see Comment 5.a.iii).
11. Milestone Schedule: Please submit a revised VRP milestone schedule that is consistent with the requirements summarized on the current VRP application form by no later than May 18, 2014 consistent with the general milestones reference in the application checklist, based on a start date of April 18, 2014 (the date of the EPD letter accepting the Property into the VRP). The first semi-annual progress report should be submitted no later than October 18, 2014 with subsequent progress reports submitted every six months thereafter. Achievement of the general milestones outlined in the checklist, which must be documented in a progress report submitted by the required milestone date, may occur earlier but cannot occur later than the timeframe established by the checklist.

12. Groundwater Contaminant Fate and Transport Modeling:
    a. EPD's guidance regarding groundwater contaminant fate and transport modeling outlines the minimum *required* documentation.
    b. Potential risks to POEs downgradient of the participating property must be evaluated for *all* COCs detected in groundwater at concentrations greater than Type 1/2 RRS using groundwater modeling. The VIRP only addresses detected chlorinated VOCs. However, benzene, and potentially arsenic, were also detected in groundwater at concentrations exceeding Type 1/2 RRS. Note that although Biochlor *may* be an appropriate model code for conducting modeling of dissolved regulated chlorinated ethenes and ethanes, it may not be appropriate for modeling the fate and transport of other COCs without significant modifications to input parameters and/or basic model code assumptions. Selected model codes and/or referenced modifications must be justified with submittal of the modeled results.

Miscellaneous General Comments

13. Field investigation procedures implemented at the site, such as: 1) soil sampling and 2) monitoring well installation, development, purging and sampling and abandonment/decommissioning, must be described in narrative format in future submittals. Field procedures should be conducted in accordance with current EPA Region 4 field standard operating procedures and/or guidance documents[2] for field investigations where feasible. Deviation from said documents must be justified in writing. In addition, field investigation records must be included in future submittals as supporting documentation that implemented field procedures were acceptable. For example, all of the following information must be included on field monitoring well purging/sampling records:
    - A description of the method used to purge the well and specific method by which the final water samples were withdrawn from the wells (*i.e.*, peristaltic pump/"straw method" for VOCs, downhole pump or bailer, *etc.*),
    - Volume (in gallons) of water initially in the well and final volume (in gallons) of water purged,
    - Purge rate, initial depth to water prior to insertion of the purging device, depth (in feet) to water during the purge process, depth (in feet) to the pump intake during purge process, stabilization parameter measurements during purge process, and the intake depth of the sampling device.
14. Analytical data reports submitted to EPD must be complete, with applicable signatures, as issued by the laboratory. In addition, pursuant to §391-3-26 of the Rules for Commercial Environmental Laboratories, analytical data submitted for regulatory purposes will only be accepted by EPD if required laboratory certification documentation is also provided to EPD. Required documentation *must* include: 1) name of accrediting agency, 2) scope of accreditation relevant to the data submitted, 3) accreditation number or identifier, 4) effective date of accreditation, and 5) expiration date of accreditation. Please provide complete copies and the missing stipulation documentation for the incomplete soil and groundwater laboratory reports provided to EPD as supplemental information to the initial release notification and summarized in the VIRP, and ensure that all required certification stipulation documentation is submitted *with* future laboratory analytical reports. *Note that laboratory analytical data without copies of complete analytical reports and certification documentation cannot be accepted for demonstration of achievement of contaminant delineation and/or compliance with applicable cleanup standards.*
15. EPD understands that a water supply well is located in the southern portion of the subject Property, near monitoring well MW-5, which has not been used for greater than a year. Said well must be: 1) maintained and used , 2) temporarily abandoned if use ceased less than 3 years ago, or 3) permanently decommissioned if the well has been unused for 3 years or more in accordance with §12-5-134(6) of the Georgia Water Well Standards Act of 1985[3], et. seq. If the well is permanently decommission, documentation, including well abandonment field logs, must be submitted to the Response and Remediation Program within 60-days of decommissioning. EPD recommends that the participant consider using said well as a deep groundwater monitoring point, if appropriate (see Comment 6a.), before considering permanent decommissioning. For your convenience, a copy of Georgia Department of Natural Resources Circular 13, GROUTING AND PLUGGING OF DOMESTIC WATER WELLS IN GEORGIA (1988) is attached to this letter since it describes acceptable decommissioning procedures for water supply wells in Georgia. Note that local regulatory requirements may also apply, and Trademark should contact the local environmental health

[2] Current EPA Region 4 documents may be accessed online at: http://www.epa.gov/region04/sesd/fbqstp/.

[3] A copy of the referenced Act is available *via* the worldwide web at: http://www.gaepd.org/Documents/rules_exist.html.

department for said requirements.

16. Please see the guidelines regarding the document submittal format to the RRP and ensure it is followed for future submittals. The compact disks containing the electronic copies of the VRP Application and VIRP were not labeled or provided in jewel cases as required. In addition, although the complete application and VIRP were contained in a single portable document file (pdf), multiple pdf files breaking the submittal up are required.

EPD expects to receive a revised milestone schedule and the first VRP semi-annual progress report for the subject Property on or before May 18, 2014 and October 18, 2014, respectively. If you have any questions regarding these comments or the Site in general, please contact Carolyn L. Daniels, P.G. of my office at (404) 657-8646.

Sincerely,

Charles D. Williams

Charles D. Williams
Program Manager
Response and Remediation Program

Attachments: EPD Trip Report with Map of Known Water Wells, GGS Circular 13, and RRP Document Submittal Format Guidelines

File: 254-0068, VRP

c: Barry D. Robertson, Stillwater Technologies, Inc.

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