

Georgia Department of Natural Resources

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Environmental Protection Division

Judson H. Turner, Director

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Reply To:

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April 10, 2015

VIA EMAIL AND REGULAR MAIL

David Shelley, CFO
Southern States, LLC
30 Georgia Avenue
Hampton, Georgia 30028

Re: Voluntary Remediation Program Plan and Application dated October 30, 2014
Southern States, HSI Site No. 10141
Hampton, Henry County, Georgia
Tax Parcel ID: H03-05010000, 008-01001000 and 022-01060000

Dear Mr. Shelley:

The Georgia Environmental Protection Division (EPD) has reviewed Southern States, LLC's Voluntary Remediation Program (VRP) Plan and Application dated October 30, 2014 for the above referenced site. EPD provides the following comments:

1. EPD is withholding concurrence with the proposed channelization of the upper 300-foot section of Little Bear Creek pending the results of the additional sediment sampling, ecological risk assessment, and discussions with the U.S. Army Corps of Engineers regarding the wetland status of the area. EPD expects to receive your ecological risk assessment report as proposed in your milestone schedule in Appendix E.
2. Please note the delineation criteria selected for the site, the Type 1 risk reduction standards (RRS) may not be applicable for sediments. In the event, the ecological-based cleanup criteria is less than the Type 1 RRS, delineation will be required to the ecological-based value.
3. In addition to the SED-4 location, it appears that SED-3 also exceeds the Type 1 RRS at a depth of 12 inches with a concentration of 1.81 mg/kg. Figure 13 does not include all of the sediment sample locations that are shown in Figure 9.
4. Additional sediment sampling should occur between locations SED-2 and SED-3 as this appears to be the most probable point of entry based on the soil sample from SB-07. For all sediment samples to be collected in the future, more samples should be collected in the 12 inch range since that was the maximum concentration range for SED-3 and SED-4.
5. Page 12 indicates that a removal action was performed in 2013 for metals contaminated soils. Since the site was already listed on the HSI at the time and this was a historical release, Southern States will need to include those COCs as part of the final certification of compliance. Also, the final CSR should indicate the amount of material removed and the location of the disposal facility.

6. EPD received your Release Notification dated March 6, 2015 for Former Municipal Water Tank. This issue should be handled like comment #5. Lead should be included as a COC for the site and the final CSR should document the removal work performed at this location. Based on the confirmation soil sampling data, the contaminated soil with lead has been removed. Therefore, the proposed installation of the telecommunications tower in this area should proceed.
7. Page 13 indicates that the source of PCBs may be from historical transformers for on-site power distribution. Please indicate the location of the former transformers and the sample locations for the investigation of this area.
8. The soil Type 1 RRS values provided in Table A-1 are correct. The groundwater Type 1/3 RRS for the regulated substances listed in Table A-2 are correct except for chloroform. Please note that the correct Type 1/3 RRS for chloroform is 80 ug/L (based on Appendix III, Table 1 of the Rules). Please revise the overall groundwater Type 4 RRS based on the correct Type 1 RRS. The groundwater Type 4 RRS for the regulated substances listed in Table A-2 are correct for all except 1,1,2-trichloroethane. Please revise non-carcinogenic value based on the Risk Assessment Guidance for Superfund (RAGS) Part B Equation 2. Please revise Table A-2.
9. According to the VRP Application, TCE has been detected in groundwater at concentrations as high as 200 mg/L. Using the chemical-specific screening levels derived via use of U.S. EPA's Vapor Intrusion Screening Level¹ (VISL) calculator and the best available science and toxicity data provided in the most current Regional Screening Levels (RSL) Table, the levels of TCE in groundwater would exceed the applicable indoor air screening values. While no buildings currently exist above the groundwater contaminant plume, EPD requires that one of the following actions be taken regarding the potentially complete vapor intrusion exposure pathway:
 - a. Complete a vapor intrusion evaluation in the area(s) of known impact and identify the areas onsite that would require future vapor mitigation/remediation measures to eliminate future exposure to vapors above established screening levels, in the event that future structures were built in this identified impact area; and/or,
 - b. Ensure that the property use limitations section of the UEC includes a plan to complete a vapor intrusion evaluation and/or the implementation of vapor intrusion mitigation measures in the event that future land use(s) change.
10. The VRP Application data indicates that 1,1,1-trichloroethane (1,1,1-TCA) is one of the established contaminants of concern at the site. It is known that 1,4-dioxane has been used as a solvent stabilizer in 1,1,1-TCA and is highly soluble and mobile in groundwater. Therefore, please ensure that future monitoring events include an analysis of 1,4-dioxane when analyzing for VOCs.
11. Section 102-8-108(8) of the Act states that, "compliance with site-specific cleanup standards that require that source material be removed may be satisfied when such material is removed, decontaminated, or otherwise immobilized in the subsurface, to the extent practicable." Please note that verification of the presence of source material

¹ U.S. EPA (March 2012) *Vapor Intrusion Screening Level (VISL) Calculator User's Guide*. Available online at: http://www.epa.gov/oswer/vaporintrusion/documents/VISL_UsersGuide_v1.0_Nov2011RSLs.pdf

through direct observation (i.e., detection of dense non-aqueous phase liquid, DNAPL) is not a limiting criteria for the presence of source material at a site, as it can be assumed that source material/DNAPL is present when the concentration of a chemical in groundwater is greater than 1% of its pure-phase solubility² (14.72 mg/L for TCE). Considering that concentrations of TCE in groundwater at the site have been detected at levels as high as 200 mg/L, EPD requires that data be provided to demonstrate that sufficient investigations have been completed to determine the potential extent of the TCE source material. The resulting data may require the implementation of an alternate corrective measure in order to remediate the identified source material to the extent practicable.

12. According to Section 4.0 of the VRP Application, fate and transport modeling for the shallow and bedrock groundwater contamination would be completed "if required." Due to the high concentration of TCE (200 mg/L) and the potential for DNAPL to exist at the site, fate and transport modeling will be required for both the shallow and bedrock dissolved phase groundwater plumes. Please note that this may require the installation of additional groundwater monitoring well locations to supplement the conceptual site model, contribute to the development of a bedrock contour map, and characterize the extent of potential DNAPL.
13. According to Section 4.5 of the VRP Application, "the final groundwater cleanup standards will be defined following initial groundwater remediation activities of select areas within the overburden unit." Considering that the in-situ chemical oxidation (ISCO) corrective action will be implemented to address groundwater quality issues, EPD recommends that groundwater cleanup criteria/goals (RRS) are developed prior to the implementation of the ISCO corrective action.
14. According to Section 5.1.5, Southern States is proposing to utilize the City of Hampton zoning prohibition (Ord. No. 77, § 2.01, 10-12-93) as part of their institutional controls to control the digging, drilling, or boring a well for water on the site property. Please note that at this time EPD cannot concur with the sole use of the City of Hampton zoning prohibition to demonstrate the groundwater exposure pathway for the applicable parcel will remain incomplete during the future property use(s), and recommends that the site specific UEC include a site specific groundwater use restriction as part of the site limitations.
15. EPD recommends that you update a site figure to include all utility corridors and drainage infrastructure features, including all in-ground system and storm water conveyances.
16. Based on the groundwater data and associated file information for the site, additional groundwater data will be required to the south of groundwater monitoring locations TP-2 and MW-21 in order to complete delineation requirements in accordance with Section 12-8-1-8 of the Act.

² U.S. Environmental Protection Agency (USEPA), Solid Waste & Emergency Response. DNAPL Remediation: Selected Projects Approaching Regulatory Closure, EPA 542-R-04-016, December 2004, available for download at: <http://www.epa.gov/tio/download/remed/542r04016.pdf>

17. The following comments pertain to technical/clerical issues noted within the VRP Application:

- a. Figure 4, A-A' Cross Section, illustrates two monitoring locations for MW-26, one of which is located next to MW-19 that does not appear on the Figure 3 Cross Section Location Map.
- b. As part of the supporting documentation for the conceptual site model, please superimpose the contaminant plume and associated concentrations on the cross section figures to better illustrate the lateral and vertical extent of groundwater impacts.
- c. Please note that according to Section 3.0 of the VRP Application, vertical and horizontal delineation of groundwater impacts is complete. However, the wells that were used to demonstrate delineation (MW-24, M-25, MW-36, MW-37, and MW-38) were not included in any of the geologic cross sections. Please explain.

Please respond to the above comments in a response-to-comment format with the submittal of the first semi-annual VRP progress report due no later than October 15, 2015. If you have any questions regarding this matter, please contact Mr. Yue Han of the Response and Remediation Program at (404) 657-8678.

Sincerely,



David Brownlee
Unit Coordinator
Response and Remediation Program

c: John O. Schwaller, Environmental Management Associates, LLC

File: 10141

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