

Georgia Department of Natural Resources

Environmental Protection Division-Land Protection Branch

2 Martin Luther King Jr., Dr., Suite 1054 East, Atlanta, Georgia 30334

(404) 657-8600; Fax (404) 657-0807

Judson H. Turner, Director

April 23, 2015

CSI Realty, LLC
c/o Mr. Tom Watters
2680 Lakeland Road
Dalton, Georgia 30721

COPY

Re: Compliance Status Report, November 24, 2014
Draft Uniform Environmental Covenant, October 28, 2014
Color Spectrum, HSI Site No. 10831
LaFayette, Walker County, Georgia
Tax Parcel ID: 1023 087

Dear Mr. Watters:

The Georgia Environmental Protection Division (EPD) has received the Compliance Status Report submitted on November 24, 2014, as well as the proposed Uniform Environmental Covenant (UEC) originally submitted via e-mail on October 28, 2014. EPD has reviewed the documents and has the following comments:

Compliance Status Report:

Risk Reduction Standards

1. The RRS values derived in Appendix H are correct for all constituents and approved for use at the site.

BIOCHLOR Model

2. The Model Development and Calibration for flow path A discussion states that groundwater concentrations obtained from soil borings SB-22 and SB-23 are considered to be in the zero distance area along with monitoring wells MW-8, MW-10, and MW-11. There is a similar discussion for flow path B. It is not clear from Table A which monitoring wells and concentrations were used for the model for either flow path. Please provide an input table like Table A for each model run. The table should clearly state the monitoring well, the distance of the well from the source, and the concentration being inputted to the model. Justification of the use of model defaults and assumptions should be provided.
3. The BIOCHLOR model provides three options for calculating alpha x (the longitudinal distribution of the plume). EPD understands that option 3 was chosen and that an estimated plume length (L) of 85 feet was used in the calculations. Please provide an explanation of how L was determined. Also, state if the plume length is estimated to be the same for both flow paths. Providing figures that depict these parameters would be useful.

4. Please correct the modeled plume width and length to more closely reflect conditions at the site, and include a map showing the modeled area. Per the BIOCHLOR User's Manual Version 1.0, the modeled area length is the distance from the source to the receptor, which in this case is the stream. The modeled area width should be larger than the plume width in order to capture all of the mass that could potentially discharge into the stream.
5. The source width area of 0.1 feet is not an accurate representation of site conditions. Per the BIOCHLOR User's Manual, the source area width (Y) *the Domenico (1987) model assumes a vertical plane source of constant concentration. The source width is the extent of the source area perpendicular to the ground-water flow.* Please provide justification for using a calibrated source width area of 0.1 feet, and submit a sensitivity analysis using varying source area widths.
6. Input screenshots and input parameter tables should be submitted for all model runs. In addition, output screens should include all data, not just the concentration versus distance from source plot. Source wells and wells along the plume centerline should be clearly indicated
7. Please include figures that show reference points including flow paths A and B, point of demonstration monitoring wells, and the adjacent stream, which we consider the theoretical point of exposure.
8. Please correct the units for the source concentration for PCE in the Source Contribution section of Table A *Input Parameters for the BIOCHLOR Model* from parts per million to parts per billion.

Vapor Intrusion Screening

9. EPD has reviewed the Johnson and Ettinger (J&E) model and determined that the toxicity and exposure factors used are correct.
10. Soil concentrations used in the non-residential vapor intrusion analysis are incorrect and inconsistent with residential values. Table 2 in Appendix C shows the maximum concentrations for PCE and Freon-113 as 0.3 mg/kg and 6.3 mg/kg, respectively. The current J&E model used the following values as inputs:

PCE:	Residential	0.3 mg/kg
	Non Residential	0.015 mg/kg
Freon-113:	Residential	6.34 mg/kg
	Non Residential	4.2 mg/kg

Please amend these values to reflect the data in Table 2.

11. The building dimensions used in the J&E model do not match those reported in the Walker County tax records for the site. Tax records state that the building is approximately 28,700 ft², rather than the 74,000 ft² used in the model. Please provide justification for non-residential building dimensions, or a description for how the model

values were obtained.

12. Vapor intrusion (VI) potential was only analyzed for two contaminants of concern (Freon-113 and PCE). In order to properly screen for VI risk, all volatile chemicals detected at the site should be considered.

General Comments

13. The water levels in all monitoring wells should be gauged and a revised potentiometric surface map that includes monitoring well MW-14 should be submitted to EPD.
14. Cross sections should be updated to include the newly installed monitoring well MW-14. Additionally, the cross sections should include isoconcentration contours.

Uniform Environmental Covenant:

Name and Location of Administrative Records

1. This section should include the HSI number for the Site. Prior to listing the EPD office address, the statement should read "These documents are available at the following location in the files for HSI Number 10831."

Description of Contamination and Corrective Action

2. EPD has made note of the intention to remove non-residential usage restriction for the Site, as stated in recent correspondence with Justin Vickery of Environmental Planning Specialists, Inc. Since the vapor intrusion (VI) assessment in the VRP Compliance Status Report accounted for soil and groundwater sources separately, rather than considering their combined effects through soil gas data, EPD has determined that residential usage may not be appropriate for the Property. The use of soil and groundwater data alone results in a less conservative estimate of the VI pathway. As such, the non-residential usage restriction should remain in place for the final version of the UEC. Residential usage may be considered at a later date, pending written EPD approval, if an updated VI review and report are submitted with the inclusion of soil gas data.
3. All regulated contaminants that have been detected at the Site must be listed in this section. Currently, only 1,1-dichloroethene and tetrachloroethene are listed. Please revise this section to also include 1,1,1-trichloroethane, 1,1-dichloroethane, acetone, Freon-113, Freon-12, isopropylbenzene, and lead.
4. The last sentence of the third paragraph in this section contains an error. Please replace the word "excising" with "exercising."
5. The fourth paragraph in this section lists O.C.G.A. § 44-16-9 as the only instrument for modification or termination of the covenant. This statement should be amended to include both O.C.G.A. § 44-16-9 and 10.

Activity and/or Use Limitation(s)

6. Under section 2, "Notice", there has been an omission from the model UEC. A sentence should be added at the end of this section which reads: "The **Owner** of the Property must also give thirty (30) day advance written notice to EPD of the **Owner's** intent to change the use of the Property, apply for building permit(s), or propose any site work that would affect the Property.

Attachments

7. EPD has implemented new requirements for signature pages on environmental covenants. Please see the enclosure for a model UEC for streamlined for groundwater and site usage restriction. This document contains a revised signature page that meets the updated criteria, such as the inclusion of an unofficial witness. Please review the streamlined UEC and consider making any relevant changes to the draft.
8. Under § 44-16-4, Requirements for environmental covenant, a map of the area must be submitted as Exhibit B. The map was not included with the UEC draft, and must be submitted with the final version in order to be considered complete.
9. The VRP Annual Property Evaluation Form should include a "Property Instruments" section. Please insert the following rows below the "Exposure" statements:

Property Instruments	3	Do all leases or other property instruments for the site have the applicable deed notice language inserted into them?
	3a	If no to 3, provide a written explanation (attached) to the EPD.

If you have any questions regarding this Site, please contact Jonathan Callura of my staff at (404) 232-1502.

Sincerely,



David Reuland
Unit Coordinator
Response and Remediation Program

CC: Justin Vickery, EPS
Enclosure: Sample of Updated Signature Form