

# Georgia Department of Natural Resources

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## Reply To:

Response and Remediation Program  
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Chris Clark, Commissioner  
Environmental Protection Division  
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Land Protection Branch  
Mark Smith, Branch Chief

December 2, 2010

## VIA E-MAIL AND REGULAR MAIL

John F. Rowan, Sr. Item IV Trust  
c/o Catherine Norris  
P.O. Box 82  
Rancho Santa Fe, California 92067

Re: Voluntary Investigation and Remediation Plan and Application, July 9, 2010  
Comment Letter  
Fashion Care/Executive Care Site, HSI No. 10786  
2211 Savoy Drive, Chamblee, Dekalb County, Georgia  
Tax Parcel ID Nos. 18-343-13-002, 18-343-13-005, 18-343-13-001, & 18-333-02-023

Dear Ms. Norris:

The Georgia Environmental Protection Division (EPD) has reviewed the July 9, 2010 Voluntary Investigation and Remediation Plan and Application (VIRP) submitted by Winter Environmental for the above-referenced site. EPD has noted the following items which should be addressed pursuant to the Georgia Voluntary Remediation Program Act (the Act):

### Surface Water:

1. The application attempts to use a mixing zone analysis to demonstrate that the ongoing migration of groundwater into surface water will not create an unacceptable exposure pathway in the future. However, EPD conducted an evaluation in accordance with "NPDES Reasonable Potential Procedures," and the calculations demonstrate that an excursion above in-stream water quality standards (ISWQS) may occur if active groundwater remediation is not implemented. We do not concur with the following aspects of your analysis:
  - EPD does not concur with the 'areal average groundwater concentrations' used in the mixing zone analysis. The monitoring wells selected for use in the calculations represent current (or near future) groundwater conditions in the vicinity of Nancy Creek; they are not representative of groundwater concentrations in the source area of the site, which will be expected to discharge to Nancy Creek at some point in the future. The mixing zone analysis should be re-evaluated to incorporate a scenario whereby impacted groundwater in the vicinity of the dry cleaning building migrates along the plume axis and discharges to Nancy Creek as indicated by the CSM. A fate and transport model, such as BIOCHLOR, should be used to estimate a maximum discharge groundwater concentration.
  - It may be appropriate to average estimated groundwater concentrations along the plume front where it intercepts Nancy Creek. However, modeling or another appropriate method must be used to estimate the concentrations at discrete intervals coincident with the timing of the maximum discharge concentration at the plume axis.

- An appropriate leaching model must be used to estimate the ongoing contribution of the existing soil contamination to groundwater contamination. That contribution must be included in the proposed fate and transport modeling in addition to the existing groundwater contamination.
  - The calculations should be completed using 7Q10 flow for the stream at the area of groundwater discharge. EPD has calculated that value to be 3 cubic feet per second using historical location-specific data.
2. Additional near-term surface water monitoring is necessary to demonstrate that the plume is not currently impacting Nancy Creek. The first progress report should include results from a minimum of eight (8) surface water sampling events. The flow rate should be measured prior to each sampling event and samples collected only when flow is close to 7Q10. Four (4) of the samples should be collected within a 30-day period.
  3. With respect to surface water monitoring, EPD noted that the VIRP did not provide any threshold values protective of human health and the environment. The first progress report should include proposed corrective action that will be implemented within 30 days of detection of site constituents of concern (COCs) in any surface water sample collected from Nancy Creek.
  4. Future surface water analysis should be conducted using an appropriate analytical method with a detection limit below the ISWQS for tetrachloroethene of 3.3 ug/L.
  5. The Georgia ISWQS were updated in March 2010. The correct values for 1,2-dichloroethane, benzene, ethylbenzene, and toluene, are 0.037, 0.051, 2.1, and 5.98, respectively (all mg/L) (Table 3). Note that if COCs are detected in surface water, a Screening Level Ecological Risk Assessment may be necessary because ecological remedial goals are lower than ISWQS in certain cases.

#### Groundwater

6. At this time, EPD cannot concur that horizontal delineation of the groundwater plume at the Site has been completed. An additional monitoring well may be needed to complete horizontal delineation of vinyl chloride in the vicinity of FMW-15. FMW-15 must be included in the proposed monitoring network so that a delineation determination may be made based on future sampling results. With respect to plume delineation to the south, no technical justification was provided in the VIRP supporting the theory that Nancy Creek is a hydraulic barrier to groundwater flow in bedrock. Additional refinement of the CSM is necessary, and further justification, such as demonstration of an upward vertical gradient in bedrock at the site and/or a comparison of groundwater elevations and surface water elevations, should be included in future reports.
7. The conceptual site model (CSM) for the Site, as it relates to the vertical migration of contaminants, is based on a theory that a continuous layer of hard dry silt underlies the property and acts as a barrier to vertical flow thereby creating "upper" and "lower" water bearing zones. The VIRP further theorizes that high concentrations of PCE measured in "deep" monitoring well MW-23D (19,000 µg/L) are possibly the result of vertical migration of contamination along the well casing. Please note that PCE data collected from shallow monitoring wells in the vicinity of MW-23D are significantly lower in concentration than

detected in MW-23D and do not support the theory that contaminated groundwater in the immediate vicinity of MW-23D migrated vertically along the well casing. Please present additional evidence of this 'barrier' and/or revise the CSM appropriately in future progress reports. Delineation of the "deep" aquifer plume may be required in the downgradient direction.

8. Hydraulic conductivity calculations derived from slug test data may need to be re-evaluated in the event that a uniform layer of dry silt across the site is verified. The hydraulic conductivity estimation provided in the VIRP used an aquifer thickness of 40 feet and did not appear to incorporate the dry silt layer theorized to be present across the Site.
9. The VIRP did not include a vertical gradient calculation for the Site. Please note that vertical gradient should be calculated following completion of the vertical delineation well proposed in the area of monitoring well FW-4 and the gradient result should be included in the first semi-annual report.
10. Groundwater sampling techniques were not included in the VIRP and no information was provided regarding well development activities for newly installed monitoring wells FMW-12 through FMW-16. Please provide this information in the compliance status report.

#### Engineering / Environmental Covenants

11. EPD agrees that concrete and asphalt eliminate direct exposure to soil for current site receptors as a Type 5 RRS scenario. However, if the concrete or asphalt is breached due to utility repairs or construction work at the site, direct exposure would now be a complete pathway for site receptors. Since a future breach is likely in a commercial setting, the applicant must calculate site-specific utility and construction worker cleanup standards in accordance with Section 391-3-19-.07(10) of the Rules for Hazardous Site Response, for comparison to soil and groundwater concentrations.
12. If current soil and groundwater concentrations exceed the calculated values, the proposed institutional controls must be revised to explicitly state the procedures that will be taken to protect those workers. EPD will provide additional comments on the proposed institutional controls based upon future progress reports.

#### Miscellaneous

13. Table 2 presents the soil Type 1 RRS and Table 3 presents the groundwater Type 1 RRS, which are being used as site delineation concentration criteria. Please note that the correct soil Type 1 RRS for 1,1-dichloroethane is 400 mg/kg and the correct groundwater Type 1 RRS for cis-1,2-dichloroethene is 0.07 mg/L. Also note that footnote (3) is not defined for Table 3.
14. EPD did not review the Type 4 soil RRS provided on Table 2 because they are not being used for cleanup and because toxicity factors, chemical parameters, exposure assumptions, and sample calculations were not provided for these values.
15. Figures 5 and 7 attempt to demonstrate delineation to Type 1 RRS, but do not include sample results. Future progress reports should include soil and groundwater figures that

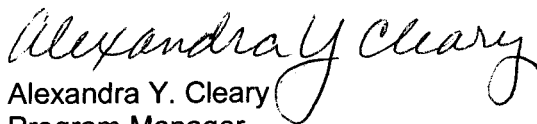
show current concentrations of all constituents of concern (soil figure should include historical data).

16. EPD concurs that the vapor intrusion pathway is likely complete on the property. However, the VIRP does not address the potential migration of vapors into the existing building on Parcel 18-343-13-005 (4306 North Peachtree Road). The building must be evaluated using the Johnson & Ettinger model or appropriate vapor sampling and results reported in the subsequent progress report.
17. During a September 2010 site visit, EPD noted that monitoring wells were not labeled and the newly installed wells were not locked. Please label and lock all wells.

The John F. Rowan, Sr. Item IV Trust (Trust) must address these comments to EPD's satisfaction in order to demonstrate compliance with the provisions, purposes, standards and policies of the Act. EPD may, at its sole discretion, review and comment on documents submitted by the Trust. However, failure of EPD to respond to a submittal within any timeframe does not relieve the Trust from complying with the provisions, purposes, standards and policies of the Act.

If you have any questions, please contact Jason Metzger at (404) 657-8600.

Sincerely,



Alexandra Y. Cleary  
Program Manager  
Response and Remediation Program

- c: Leonard Diprima, Jr., P.G., Winter Environmental  
H.A. Rowan, Southern Automatic Company  
Marvin Hewatt, Georgia-Alabama Commercial Investments, LLC  
ASL Limited Partnership