



# GEORGIA

DEPARTMENT OF NATURAL RESOURCES

## ENVIRONMENTAL PROTECTION DIVISION

**Richard E. Dunn, Director**

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**Land Protection Branch**

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Atlanta, Georgia 30334  
404-657-8600

November 22, 2017

**VIA U.S. MAIL AND EMAIL**

Hercules, LLC  
c/o Timothy D. Hassett, Project Manager  
500 Hercules Road  
Wilmington, DE 19808-1599

Subject: Semi-Annual Progress Report #9 dated September 29, 2017  
Hercules Inc., HSI No. 10696  
3000 Louisville Road, Savannah, Chatham County, Georgia 31415  
(Tax Parcel Nos. 2-0734-01-001 and 2-0734-03-001)

Dear Mr. Hassett:

The Georgia Environmental Protection Division (EPD) has reviewed the subject submittal for the referenced site that was prepared and submitted on Hercules, LLC's (Hercules) behalf by Arcadis U.S., Inc. (Arcadis). The report presented the Hercules responses to the EPD comment letter dated June 28, 2017. EPD has the following comments regarding said responses:

1. **Response to EPD Comment #2 of the January 5, 2017 Letter:** Please note the following when conducting the groundwater fate and transport modeling referenced in Hercules' response to the referenced EPD comment:
  - a. Typically, any surface water body lying between the source of contamination and the downgradient hypothetical drinking water well referenced in Hercules' response to this EPD comment in Progress Report #9 should *also* be considered a potential point of exposure (POE) for the ecological exposure pathway when conducting groundwater contaminant fate and transport modeling. The applicable Georgia In-Stream Water Quality Standards (ISWQS) or Ecological Benchmark values should be used as the not to be exceeded cleanup values at the downgradient culvert of the Dundee Canal along the downstream Property boundary.
  - b. It is EPD's understanding based on a recent conversation between Ms. Carolyn Daniels of EPD and Mr. Andrew Davis of Arcadis that the modeling efforts have been conducted by Arcadis. Hercules may wish to submit the results of the modeling for input from EPD to ensure there are no unnecessary delays in EPD's review and approval of the final CSR due in March 2018. Furthermore, a general guidance for groundwater contaminant fate and transport modeling applicable to sites administrated by the Land Protection Branch of

EPD may be accessed via the worldwide web at: [https://epd.georgia.gov/sites/epd.georgia.gov/files/LPB\\_Fate\\_and\\_Transport\\_Guidance.pdf](https://epd.georgia.gov/sites/epd.georgia.gov/files/LPB_Fate_and_Transport_Guidance.pdf). The guidance is not Program specific, but will give your consultants an idea of the type of documentation, etc. that is expected to be submitted with model results.

2. **Response to EPD Comment #3c of the January 5, 2017 Letter (Risk Reduction Standards):** The Type 1-4 Risk Reduction Standard (RRS) for phenol in soil is correct. However, EPD was unable to verify the Type 1-4 RRS for *bis*(2-chloroethyl)ether in soil due to the lack of information regarding the detection limits for soil and groundwater. For clarity, please provide the basis of the RRS for *bis*(2-chloroethyl)ether.
3. **Responses to Comment #5 of January 5, 2017 EPD Letter: Planned Delineation and Remedial Actions:** Please note that temporary monitoring wells are not appropriate for the collection of groundwater samples to be used to delineate contamination or demonstrate compliance with RRS as sample analytical results cannot be duplicated in the future. Furthermore, EPD prefers that a minimum of two sampling events be conducted at least one month apart for the monitoring wells used as delineation locations to confirm groundwater analytical results. It is EPD's understanding that field investigations associated with delineation efforts have been or are currently being conducted at the site. Ms. Daniels discussed EPD's stance regarding temporary monitoring wells and collection of groundwater samples from them via email and telephone with Mr. Davis soon after EPD's receipt of Progress Report #9.

EPD looks forward to receiving the final VRP Compliance Status Report (CSR) for the subject site on or before March 15, 2018 which should incorporate your responses to the above comments. EPD recommends that Hercules contact the EPD Site Compliance Officer, Ms. Carolyn L. Daniels, P.G. at (404) 657-8646 or [carolyn.daniels@dnr.ga.gov](mailto:carolyn.daniels@dnr.ga.gov) if you have any questions regarding these comments and/or wish to discuss additional investigation or contaminant fate and transport modeling results as early as feasible to ensure that the CSR may be completed and submitted by the planned deadline.

Sincerely,



David Hayes  
Unit Coordinator  
Response and Remediation Program

c: David Wilderman, P.G. and Andrew Davis, Arcadis (via email)  
Johnnie Quiller, Solenis (via email)

File: 242-0236 (VRP)