Reply To:
Response and Remediation Program
2 Martin Luther King, Jr. Drive, S.E.
Suite 1462, East Tower
Atlanta, Georgia 30334-9000
Office 404/657-8600 Fax 404-657-0807

Georgia Department of Natural Resources
2 Martin Luther King, Jr. Dr., S.E., Suite 1066 East, Atlanta, Georgia 30334
Mark Williams, Commissioner
Environmental Protection Division
Judson H. Turner, Director
Land Protection Branch
Mark Smith, Branch Chief

January 18, 2012

VIA EMAIL & REGULAR MAIL

Atlanta Gas Light Company
c/o Mr. Greg Corbett, Director of Environment & Sustainability
Ten Peachtree Place
Atlanta, Georgia 30309

Re: May 2011 Voluntary Remediation Plan Application
Former Rome Coal Tar Pit Site, HSI Site No. 10109
Rome, Floyd County, Georgia
Tax Parcel ID J14D 018-025

Dear Mr. Corbett:

The Georgia Environmental Protection Division (EPD) has reviewed the May 2011 Voluntary Remediation Program (VRP) application that has been submitted pursuant to the Georgia Voluntary Remediation Program Act (the Act) O.C.G.A. 12-8-100. EPD has noted the following concerns that need to be addressed:

Conceptual Site Model (CSM):

1) According to Section 391-3-19-.07(4)(d) of the Rules for Hazardous Site Response, one of the "essential features of acceptable corrective actions" is that the corrective action shall protect waters of the State from releases that would cause surface water to experience concentrations of regulated substances in excess of any general criterion specified in Georgia's Rules and Regulations or at levels established by the Director. According to the application, no further routine surface water monitoring or river surveys beyond the scheduled 2012 river survey or circumstantial significant rainfall event are included in the application's remediation activities. After reviewing the proposed Remediation Operations and Maintenance (O&M) Plan portion of the application, EPD has determined that the O&M Plan and associated corrective action associated with the Oostanaula River Type 5 risk reduction standards (RRS) area does not cover this essential element of corrective action noted by the above referenced regulation. Therefore, EPD cannot concur with the proposed RRS until this element of the site related VRP corrective action is met. In order to accomplish this, EPD recommends the following items be included in the O&M Plan for the site:

   a. Considering that one re-armoring event has already been required, please revise the O&M Plan to include continued river surveying activities every 5-years, for a minimum of the next 30-years, to ensure that the emplaced river armoring remains competent and to provide continued certification that there is no exposure to the underlying remnant source materials.

Preliminary Investigation & Remediation Plan:

2) Please include a line item in the proposed schedule of activities (Figure 4-1) for the submittal of the environmental covenant and associated title record reports for all parcels proposed to be subject to the environmental covenant.

3) The application indicates that groundwater monitoring will no longer be required at the site during the remediation phase of VRP. As additional data and site related information will be submitted as part of the semiannual status update report that may influence the necessity of further groundwater monitoring, EPD cannot concur at this time that groundwater monitoring will no longer be required, and it must therefore continue, at a minimum, until the final VRP Compliance Status Report is completed and approved. Please note however that EPD is open to considering any proposed reductions in the future monitoring well network provided you include proper justification for these reductions in the first semiannual status update report.

4) The application included a Natural Attenuation Software model to illustrate that the contaminant plume will not migrate to the POD well MW-401AR in the future. The following comments pertain to the NAS model included in Appendix D of the application:

   a. Please note that four (4) monitoring wells were established (Section 2.8 of the application) as point of demonstration (POD) wells for the site. The model only evaluates the migration potential for one of the POD wells, MW-401AR. Please provide the NAS model results for the other three POD wells.
   b. Please revise the source length and width to match the illustrated area of "source material in groundwater," and the source thickness to be a minimum of 15-ft based on boring log and cross-section data for monitoring well MW-504.
   c. Please note that EPD will defer further technical comments regarding this model until the additional model data is provided within the 1st Quarterly Update Report.

Vapor Intrusion:

5) According to the application, the commercial parcels 9-12 (J14D 044-048) and the onsite hotel (J14D 023), which is indicated as has having a partial soil basement, have potentially complete vapor intrusion exposure pathways for the impacts from the site. As part of the vapor intrusion evaluation the Johnson and Ettinger (J&E) was used as a tool for assessing indoor vapor intrusion risk from subsurface contamination. In regard to the use of the J&E model presented in the application and the proposed soil gas assessment, EPD notes the following:

   a. Prior to using the J&E model, it must be determined that the model is appropriate for use at the site. The USEPA 2002 Draft Subsurface Vapor Intrusion Guidance notes that that the vapor intrusion pathway should not be evaluated using the J&E model based on groundwater data if there is a nearby source in the vadose zone that is potentially contributing to subsurface vapor. Therefore, based on the lateral extent of existing source materials remaining in and around the designated Type 5 area in the West 1st Street right of way, additional data will be necessary in order to complete the evaluation of the vapor intrusion exposure pathway for the buildings of concern located on parcels J14D 044-J14D 050.

b. Both the USEPA 2002 Draft Subsurface Vapor Intrusion Guidance and the 2004 J&E model User's Guide note that the J&E model assumes either a concrete basement or a slab-on-grade foundation; therefore it is not appropriate for use with buildings that have earthen floors or crawl-spaces and additional data will be necessary to complete the evaluation of the vapor intrusion exposure pathway for the onsite hotel located on parcel J14D 023.

c. According to the application, soil gas sampling is proposed in the vicinity of the hotel to better quantify vapor concentrations and calculate potential risks. According to the 2010 USEPA document, "Review of the Draft 2002 Subsurface Vapor Intrusion Guidance", it is generally not appropriate to use a single-line-of evidence approach to evaluate the vapor intrusion pathway based on soil gas data collected externally from buildings in conjunction with generic attenuation factors, or in conjunction with attenuation factors determined using the J&E model. Therefore, EPD is requesting the following in regard to the vapor intrusion assessment:

i. For the hotel building, parcel J14D 023, include two vapor intrusion sampling events for the crawl-space air sampling, concurrent with outdoor air sampling.

ii. For the retail buildings, parcels J14D 044-050, include two vapor intrusion sampling events for sub-slab and/or indoor air sampling with concurrent outdoor sampling. Please note that sub-slab sampling with concurrent indoor air and outdoor air sampling is preferred.

Risk Reduction Standards:

6) Please revise the RRS values listed in Table 2-3 in accordance with all applicable Vapor Intrusion and RRS comments provided in this memorandum.

7) Please revise the Type 5 RRS Area(s) to include all portions of the subject properties where source materials will be remaining in-place, including but not limited to parcels J14D 021 and J14D 022. Please provide an updated Figure clearly illustrating the designated Type 5 Areas.

8) In Table 2-8, please revise the Type 1 RRS for Chloroform based on the cancer risk.

9) Table 2-10: Adequate justification was not provided for the 8 hr/day exposure time (ET), which resulted in an adjusted exposure frequency (EF) of 83.3 days/yr. EPD believes that a typical worker would work beyond 8 hours/day. Unless additional documentation (i.e., work log) is provided indicating workers' schedules, EPD recommends that the EF remain unchanged (i.e. 250 days/yr). Please revise all tables, equations, and calculations accordingly.

10) It was noted in Table 2-12 that the chemical-specific parameters were obtained from the EPA Soil Screening Guidance (1996). Please note that EPD's preferred hierarchy for chemical-specific parameters is:

- Most current version of the RSL table

- Soil Screening Guidance Technical Background Document
- SCDM

Please obtain all chemical-specific parameters from the RSL table, where available.

11) Table 2-12: For IR (ingestion rate), please correct text to read 'recommended ingestion rate for workers' instead of 'inhalation rate'. Please also note that the PEF value is incorrect. The correct value for PEF as indicated in Table 3 of the HSRA Rules[1] (Rules) is 4.63x109 m3/kg. Please revise the calculations accordingly.

12) Table 2-14: Input parameters in the Adult Lead Model differ from the values provided in Table 1 of Appendix IV of the Rules. For example, the GSD value and PbBo in Table 2-14 are different from the values provided in the Rules. Please provide justification for deviating from the default values.

13) Table 2-17: The table lists Type 4 RRS values protective of a construction worker/excavation worker based solely on human health risk-based values. Please note that the Type 4 RRS calculation is incomplete because it did not incorporate a leachability evaluation (see section 391-3-19-.07(9)(d)1 of the Rules). Examples of acceptable fate-and-transport model for leachability include Equation 4-10 or B-13 (Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites, December 2002). Please incorporate leachability equation values in the soil Type 4 evaluation by selecting the lower of the leachability and the human-health risk value as the overall Type 4 RRS value.

14) Tables 2-18 to 2-20 and 2-24: Please note that the values presented in these tables, labeled as Type 4 RRS values, appear to have been obtained from the J&E model. A Type 4 RRS value is typically calculated using RAGS[2] equations (1,2,6 or 7) and leachability models. Should future data from additional site related investigations allow for the development of Vapor Intrusion output values, the values in these tables should be labeled differently to eliminate confusion with traditional Type 4 RRS values. However, in accordance with the above listed Comment 5, please note that the application of the J&E Model at this site based on the existing data is not acceptable and cannot be utilized to develop risk based values for this site.

15) EPD concurs with the current ecological risk assessment based on the data provided.

EPD recommends that some key items, e.g. modeling results, be submitted well in advance of the compliance status report (CSR) submittal to ensure compliance with the Act.

---

[1] Rules of Georgia Department of Natural Resources, Environmental Protection Program, Chapter 391-3-19, Hazardous Site Response, 1996.

[2] Risk Assessment Guidance for Superfund: Volume I – Human Health Evaluation Manual (Part B, Development of Risk-based Preliminary Remediation Goals)

The above comments must be addressed 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 AGL. However, failure of EPD to respond to a submittal within any timeframe does not relieve AGL from complying with the provisions, purposes, standards, and policies of the Act.

Should you have any question or concerns regarding this site, please contact Mr. Kevin Collins of the Response and Remediation Program at (404) 657-0488.

Sincerely,

David Brownlee
Acting Program Manager
Response and Remediation Program

c: Ira Pearl, AGLC
Jim Morrison, ERM
Ira Levy, Battery Downtown LLC
John Bennett, City Manager, City of Rome
Daphne Jones, PSC
File: VRP Application 770488468 – Former Rome Coal Tar Pit Site

S:\RDRIVE\KevinC\RRP Projects\VRP Applications\10109-Former Rome MGP\10109-Revised 2011 VRP Comments.doc