Georgia Department of Natural Resources
Environmental Protection Division-Land Protection Branch
2 Martin Luther King Jr., Dr., Suite 1054, Atlanta, Georgia 30334
(404) 656-7802; Fax (404) 651-9425
Judson H. Turner, Director

February 16, 2016

VIA EMAIL & REGULAR MAIL

Colonial Terminals, Inc.
c/o Mr. Jim Baker
Manager, Environmental Compliance
Colonial Terminals, Inc.
Post Office Box 576
Savannah, GA 31402

Exxon-Mobil Corp
c/o Mr. Mike Skinner
Michael J. Skinner Consulting, LLC
230 Kings Highway East, #300
Haddonfield, NJ 08033

Estech, Inc.
c/o Mr. Thomas C. McGowan
McGrath, North, Mullin & Kratz, PC LLO
Suite 3700 First National Tower
1601 Dodge Street
Omaha, NB 6810

Re: 2014-2015 Voluntary Remediation Program (VRP) Documents
Colonial Terminals Plant #2 (HSI # 10098)
Savannah, Chatham County, Georgia
Tax Parcel ID #s: 1-0549-01-002, 1-0549-01-002A, 1-0550-02-004

Dear Messrs. Baker, Skinner, and McGowan:

The Georgia Environmental Protection Division (EPD) has received the following reports that have been submitted pursuant to the Georgia Voluntary Remediation Program Act (the Act) O.C.G.A. 12-8-100, by Ramboll Environ on behalf of Colonial Terminals Inc. (Colonial):

- November 10, 2014 Response to GA EPD's Comments (Response)
- November 2014 Semi-Annual Progress Report No. 3
- May 2015 Semi-Annual Progress Report No. 4
- November 2015 Semi-Annual Progress Report No. 5

After completing a review of these reports, EPD has prepared the following comments:

1) In accordance with the Federal Clean Water Act and the Georgia Water Quality Control Act, in October 2006, the United States Environmental Protection Agency (USEPA) approved the Total Maximum Daily Load (TMDL) for dissolved oxygen (DO) in the Savannah Harbor, which allows no wasteload allocations of oxygen demanding substances (http://epd.georgia.gov/sites/epd.georgia.gov/files/related_files/site_page/EPA_SavannahHarbor_DO_TMDL_2006.pdf). The DO standard for the Harbor is a daily average of 5.0 mg/L, not less than 4.0 mg/L, unless the natural DO is less than these values, then a 0.1 mg/L DO deficit from the natural DO will be allowed. On November 13, 2015, EPD proposed an alternative approach to allow for discharges of oxygen demanding substance into the Savannah River Basin (http://epd.georgia.gov/sites/epd.georgia.gov/files/related_files/site_page/SavannahHarbor5R_Restoration_Plan_11_10_2015.pdf). The allowable deficit has been allocated among the various dischargers. Currently, there is no assimilative capacity to allow for any additional dischargers or releases of DO demanding loads to the Harbor. Considering that the above referenced site is adjacent to the Savannah River and that ground water from this site is discharging oxygen

demanding substances (i.e., chlorinated solvents into the Harbor) EPD requires that you provide the following information in order to demonstrate that the site is not in violation of the above referenced Savannah Harbor DO water quality standard.

a. Conduct a long term oxygen demand test (biological oxygen demand, chemical oxygen demand, total organic carbon, ammonia, etc.) of the pore water sampled directly adjacent to the river bank. The test should be conducted for a minimum of 120-days to determine the DO demand. Information on the test can be found on EPD's website at http://epd.georgia.gov/long-term-bod-test-references.

b. Groundwater modeling to demonstrate that organic loading from the chlorinated solvent impacted groundwater is not causing an oxygen deficit at the point of discharge to the Savanah River.

Should you have any questions regarding the oxygen demand testing, please contact Elizabeth Booth of EPD's Watershed Protection Branch, Watershed Planning & Monitoring Program, at 404-463-1511.

2) The Response and the above listed Progress Reports indicate that leaching to groundwater is not a required component of the site-specific RRS for the soils onsite, and therefore the site will meet a Type 5 RRS as the exposure to groundwater does not constitute a complete exposure pathway with regards to human health. Please note that EPD was willing to accept the proposition that the site will not meet residential/non-residential compliance standards for soils greater than 2-feet below ground surface in consideration of providing a demonstration that the concentrations leached into the groundwater will not result in an impact to the point of exposure (i.e., the Savannah River). Please note that prior to the site being able to meet the requested Type 5 compliance standard for soil, the site must complete the above noted demonstration (Comment 1) to prove that the concentrations leached into the groundwater will not result in an impact to the point of exposure.

3) In order to address EPD's concerns associated with the prior surface water sample locations, samples have been collected from revised locations approximately 1-foot above the river bottom at locations where the water depth was less than four (4) feet. While these efforts have improved the quality of data from the surface water sample locations, additional surface water data will be required in order to meet the data quality objectives of Comment (1) above. Please coordinate with EPD when scheduling the next surface water monitoring event so that EPD may be onsite to collect duplicate surface water samples. At the time of this site visit, EPD will also assess the site conditions along the bank of the river in the area closest to the groundwater impacts to determine if any modifications to the current locations can be made.

4) EPD concurs with the methodologies and conclusions associated with the geostatistical modeling approach to predicting the extent of free phase source material within the groundwater at the site. However, according to the above referenced VRP documents, "modeling only followed by no further action," has been proposed to address the free phase source material(s) identified in the subsurface onsite. Monitoring and no further action does not meet the requirements of Section 12-8-108(8) of the Act, which requires that source material be removed, decontaminated, or otherwise immobilized in the subsurface to the extent practicable. Therefore, either propose

additional corrective measures in compliance with the referenced section of the Act, or demonstrate that remediation has been performed to the point of technical impracticability.

5) EPD concurs with the use of the area averaging methodologies for determining the compliance status of the arsenic and lead impacts to the surface soils, and accepts the conclusion that these surface soil impacts meet the Type 4 non-residential cleanup criteria in accordance with the Act for the areas outside of the designated Type 5 risk reduction standards areas.

6) EPD has reviewed the area averaging information for the subsurface soils provided in the above referenced Response, and maintains that the proposed use of area averaging for determining the subsurface soil compliance at this site is not acceptable based on the information provided. However, please note that the corrective action associated with subsurface soil exceedances, as long as the cleanup value is not a leaching based value dependent upon protection of a groundwater/surface water receptor, can be addressed through the site specific Uniform Environmental Covenant (UEC). Further comments regarding the area averaging soil cleanup approach are included below:

   a. EPD does not concur with the proposed area averaging approach for the subsurface construction/utility worker scenario at this site, as the approach for the subsurface soils cannot be based on random exposure over the entire proposed exposure domain. Should a site choose to utilize the area averaging approach for this particular exposure scenario, the site must establish an exposure domain associated with the specific activity, which may involve some degree of speculation associated with future site activities. The data acquired for these subsurface exposure domains must account for the nature of the release, depth of the expected exposure, and the heterogeneity typical of subsurface environments, i.e. representative data sets from each particular depth interval throughout the exposure domain(s). As utility and construction work tend to vary in location, depth, and duration, it tends to be impractical to establish exposure domains specific to these activities and to acquire the necessary data. It is typically more practical to address the health and safety concerns associated with this exposure pathway through land disturbance requirements and restrictions in the environmental covenant. Should Colonial choose to demonstrate subsurface soil compliance through the use of area averaging, please contact EPD to discuss the data required to define the exposure domain(s) and establish a representative concentration.

   b. Should area averaging be utilized, please establish any applicable acute toxicity criteria, or in the event that an acute criterion cannot be determined provide a worker protection level for the contaminants of concern left in place.

7) According to the available file information for the site, the City of Savannah conducted corrective action of soils onsite as part of the Westside Flood Relief Project drain culvert installation, documented within the March 11, 2002 Construction Corrective Action Plan (CAP) and the May 8, 2006 Construction Compliance Status Report (CSR). Please ensure that the final CSR includes a description of this particular corrective action, including limits of vertical and horizontal excavations and associated risk reduction standards.

The above listed comments must be addressed to EPD's satisfaction in order to demonstrate compliance with the provisions, purposes, standards and policies of the Act. In accordance with the approved VRP schedule, EPD anticipates receipt of the next Progress Report by May 30, 2016. Regarding Comment (3) above, please contact EPD directly to coordinate the next surface water sampling event. Should you have any question or concerns, please contact Mr. Kevin Collins of the Response and Remediation Program at (404) 657-8660.

Sincerely,

Jason Metzger
Program Manager
Response and Remediation Program

c: Elizabeth Booth, Watershed Protection Branch
Jeff Margolin, Ramboll Environ

File: HSI# 10098

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