Phase I Trimble County Landfill & CCRT Project

Quarterly Report – Update #15

October 30, 2019

Executive Summary

This report covers LG&E and KU's ("Companies") progress on the Phase I Trimble County Landfill and CCRT[1] Project through the third quarter of 2019.

Safety performance to date remains excellent with an Inception-to-Date OSHA Recordable Incident Rate of 0.50, compared to the industry average of 3.2 and 0.54 as reported in the last report. The Year-to-Date Rate is 0.0.

The Project's total forecasted cost remains $307.6 million (net),[2] compared to $321.9 million (net) as provided in Case No. 2015-00194. The forecast reflects that all major contracts have been awarded, accounts for spend and progress to date on construction, as well as the delays attributed to the record precipitation experienced to date on the project. Total spend to date has increased from $251.9 million (net) to $263.7 million (net) through September 30, 2019.

As previously reported, all necessary permits to construct the Project have been received. Project background information (i.e., scope, contract awards, conceptual design layouts, and permitting status) are located in the Appendix.

The Dry Fly Ash and Gypsum Dewatering systems are in commercial operation. Construction of the CCRT subprojects are nearing completion with most of the work focused on punch-list activities and final grading and resurfacing of the site. Construction on the CCR Transport subproject scope (i.e., CCR pipe conveyor, bridge and road) during the quarter has consisted of installation of pipe conveyor belt, installation of electrical and mechanical components in the landfill electrical and emergency CCR storage enclosures, civil construction of underground piping and electrical ductbank for the landfill leachate pond, installation of the leachate pond electrical building, and final grading of the roadway corridor from the generating station to the future landfill site. AMEC's subcontractor, Louisville Paving, a local company, began placing asphalt pavement throughout the generating station site and along the haul road, and began installing the permanent guardrail along the haul road corridor. The new bridge continues to be utilized for construction traffic to reduce impacts to local roads. Construction on the landfill subproject scope continues by Charah, also a local company. Charah continues maintaining site erosion control measures, stripping and grading slopes, rock blasting and structural fill placement associated with the future landfill cell, and installation of piping for the landfill underdrain system. The forecasted end date of the landfill subproject has slightly changed due to unforeseen circumstances with the leachate pond construction. The landfill is now expected to be completed early in the fourth quarter of 2020, instead of the third quarter of 2020 as previously

[1] The Coal Combustion Residuals Treatment ("CCRT") subproject scope is described in detail in the Appendix found on page 10.

[2] Co-Owners of the Trimble County plant: Illinois Municipal Electric Agency (IMEA) and Indiana Municipal Power Agency (IMPA) are responsible for 25%. IMEA owns 12.12% and IMPA owns 12.88%. Co-owner share is not included in the costs provided in this report.

reported. No operational impacts are expected from this shift in schedule. No additional land purchases occurred during the quarter; however, the Companies continue to intermittently discuss land purchases with a few adjacent property owners to the future landfill as it relates to providing additional buffer areas between the landfill and nearby residents.

CCRT & Transport Quarterly Status Update

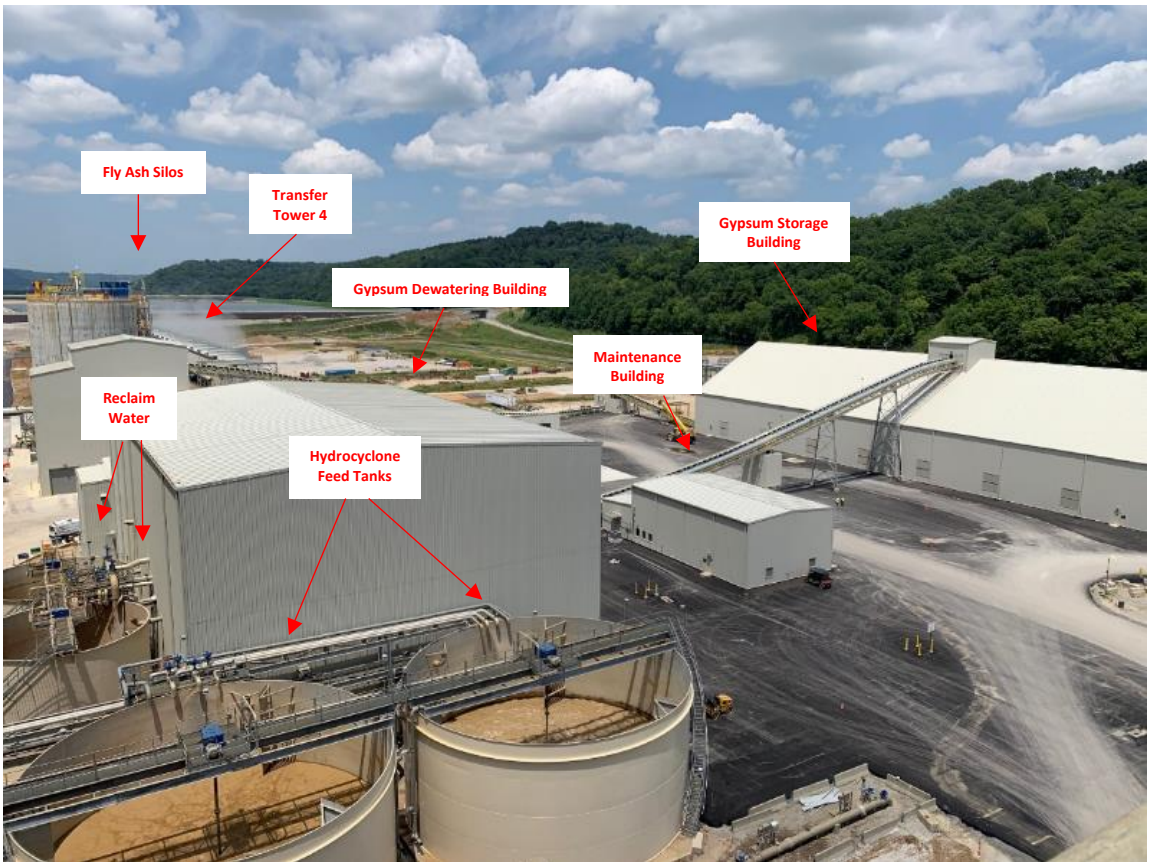
The Companies continue to hold project review meetings with AMEC and the station. Activities at daily and weekly Project Engineering and construction meetings are primarily focused on construction plans and schedules, punch-list items, and final commissioning and testing activities.

The procurement and construction status for the major equipment is summarized in the table below:

Equipment	Awarded Contractor	Status
Unit 1 Bottom Ash Submerged Chain Conveyor	United Conveyor Corporation	Equipment placed into service in November 2017 as planned.
Fly Ash Conditioner and Conveying System	United Conveyor Corporation	Placed into Commercial Operation in April 2019
Gypsum Dewatering Vacuum Belt Filter System	FLSmidth	Placed into Commercial Operation in April 2019
Gypsum Portal Scraper Reclaimer	Ameco (same vendor as Ghent's portal reclaimer commissioned in December 2014)	Placed into Commercial Operation in April 2019
Pipe Conveyor	Beumer Group (same vendor as Ghent's pipe conveyor commissioned in December 2014)	Bridge and Haul Road are in service. Commissioning activities and Performance Testing for the Pipe Conveyor system to be completed during the fourth quarter of 2019.

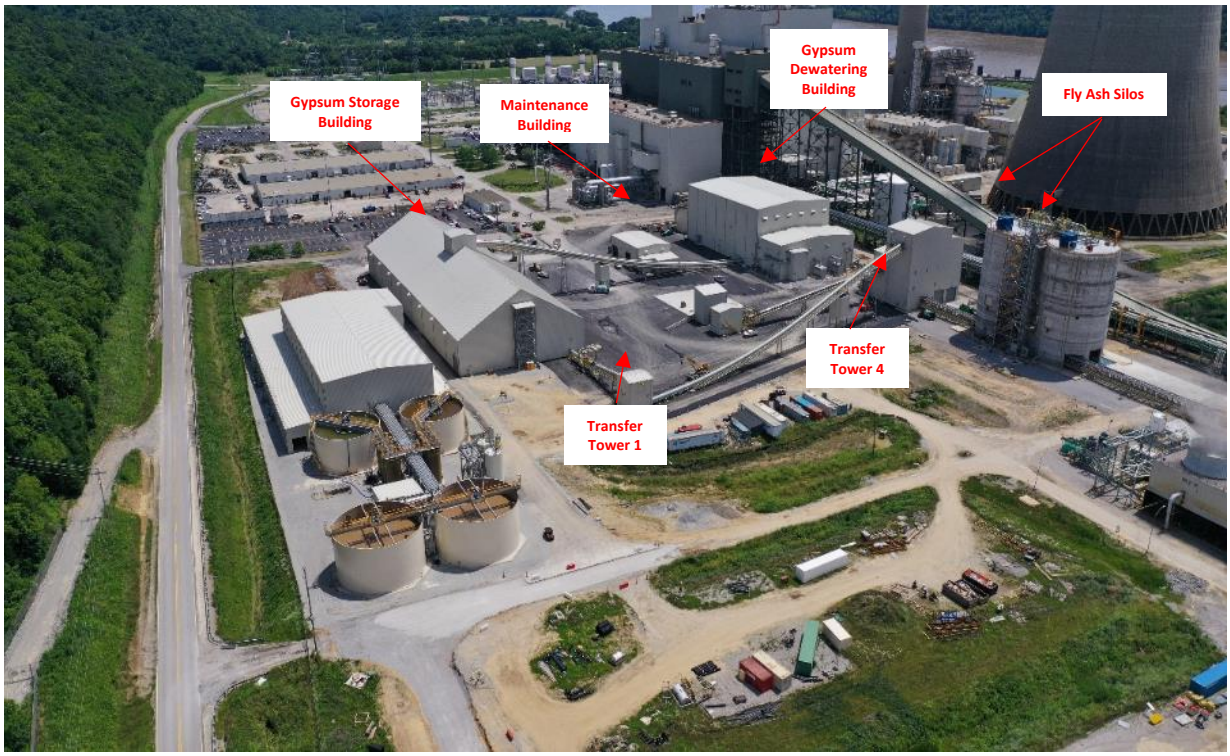
AMEC, with involvement from the Companies, has completed engineering activities with the exception of incorporating the "as built" conditions into the final documentation for the Fly Ash, Gypsum and Transport subprojects documentation. The CCRT scope continues to progress well with construction winding down and the focus now on punch-list and final grading of the site. AMEC's subcontractor, Louisville Paving, substantially completed the placement of asphalt pavement throughout the generating station site.

The CCR Transport scope is also progressing well. During the reporting period, AMEC and their subcontractors continued civil construction activities. AMEC's subcontractor, Louisville Paving, began placing asphalt pavement for the haul road. AMEC completed installing electrical and mechanical components in the truck loading facility and electrical enclosure, completed installing underground piping to the leachate pond, completed the leachate electrical ductbank, and set the leachate power distribution center on its permanent foundation. AMEC's subcontractor, Beumer (pipe conveyor manufacturer), completed pulling the pipe conveyor belt from the generating station site to the landfill truck loading facility.

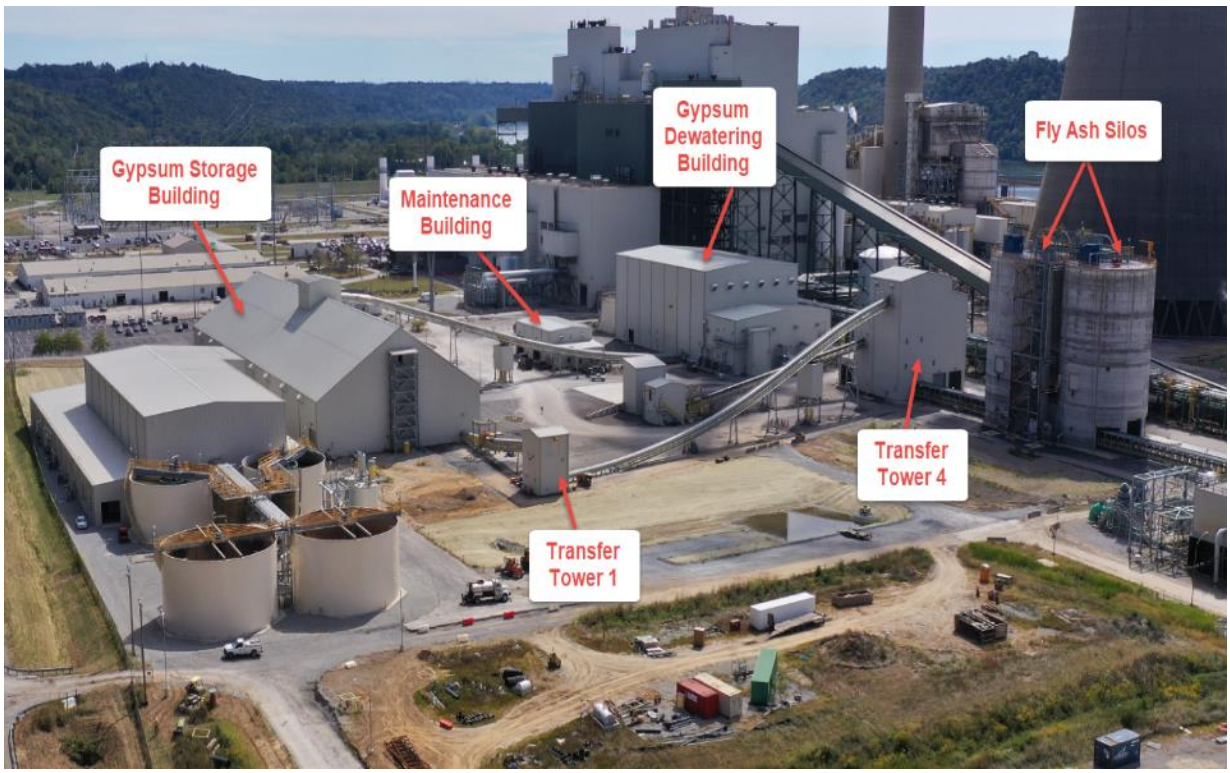


CCRT Project Area Looking North – June 2019

CCRT Project Area Looking North – October 2019



CCRT Project Area Looking South – June 2019



CCRT Project Area Looking South – September 2019

CCRT Transport Corridor – View of Bridge Over KY 1838 to Landfill (Looking West) – June 2019

CCRT Transport Corridor – View of Bridge Over KY 1838 to Landfill (Looking East) – October 2019

Landfill Quarterly Status Update

Charah continues to receive deliveries of landfill infrastructure components including concrete culverts, storm-water structures, piping and rock. Charah and its subcontractors continue stripping and grading slopes, blasting of rock, construction of the permanent leachate and stormwater ponds, and placement of structural fill in the future landfill cell. Charah continued installing perforated underdrain piping in the footprint of the future landfill cell. Overall progress on the landfill went well this quarter, but was slightly impacted by multiple water seeps beneath the footprint of the leachate pond liner system, which required remediation before construction could continue as planned. The sediment basin is nearing completion; the as built conditions of the regulated dam portion of the basin have been submitted and are under review by the Owner's Engineer, GAI Consultants. Charah continues making necessary adjustments to their work plan to mitigate schedule impacts. No impacts to operations are expected from the implementation of Charah's new work plan as they progress towards completion in the fourth quarter of 2020.

AMEC Foster Wheeler Environment & Infrastructure's construction quality assurance activities for the landfill this quarter included visual inspections, testing compaction of fill material, attending meetings, and reviewing informational submittals and drawings.

CCR Landfill Overview – View from Station (Looking East) – June 2019

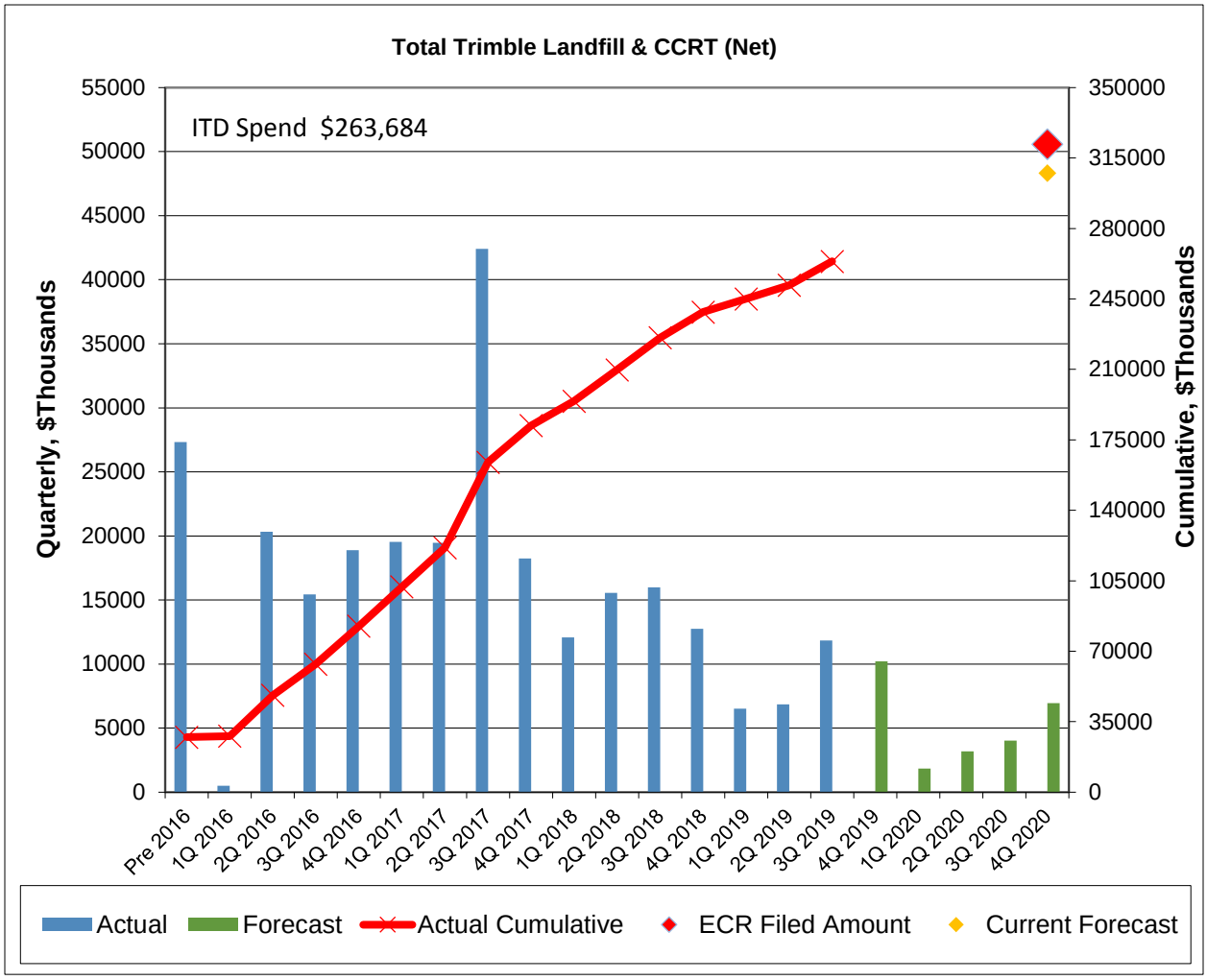
CCR Landfill Overview – View from Station (Looking East) – October 2019

CCR Landfill Overview – View toward Station (Looking South West) – June 2019

CCR Landfill Overview – View toward Station (Looking South West) – October 2019

Financials

The Project's total forecasted cost remains $307.6 million (net), and remains a reduction from $321.9 million (net) as provided in Case No. 2015-00194. The forecast reflects all major contracts that have been awarded, spend and progress to date on construction. Total spend to date has increased from $251.9 million (net) to $263.7 million (net) through September 30, 2019. Note for the graph below: (1) includes a symbol (◆) to show the current forecast to completion; and (2) Inception-to-Date ("ITD") Spend is shown in the upper left corner.



Planned Activities for Next Quarter

CCRT

AMEC will complete paving and final grading of the site, as well as work towards completing punch-list items and updating final record drawings and turnover documents for the Gypsum dewatering and Fly Ash Subprojects.

Transport

AMEC's subcontractor, Louisville Paving, will complete final grading and asphalt placement on the haul road. AMEC will complete commissioning and performance guarantee testing of the pipe conveyor, set the leachate pumps and complete the associated pipe tie-ins, and commission the leachate pump system.

Landfill

Charah will continue with major earthwork and blasting activities associated with Phase I landfill construction including installation of the geosynthetic liner system in the leachate pond, final grade work and resurfacing of the sediment basin, and constructing perimeter stormwater drainage channels throughout the landfill cell footprint. The Companies remain open to purchasing additional land within very close proximity of the landfill to provide a further buffer area between local residents and landfill operations.

APPENDIX

Scope

The Trimble County Landfill and CCRT Project scopes include: CCR Treatment facilities, CCR Transport system, and Phase I of a dry CCR landfill.

The CCR Treatment facilities include the Unit 1 bottom ash dewatering system, conversion of station fly ash transport from wet to dry conveyance, fly ash storage and treatment equipment and the station gypsum dewatering system and associated gypsum storage/reclaim system. The CCR Transport system includes a pipe conveyor (approximately 1.5 miles) from the CCR Treatment area to the landfill location, a bridge over KY 1838, and a road from the station to the new dry CCR landfill. The CCR landfill includes Phase I of a new dry CCR landfill that is designed to receive and manage CCR generated over approximately 37 years. The landfill will be developed in multiple phases with each fully integrated as an extension of the adjacent landfill phase or cell. Only Phase I is included in the CCRT and Landfill project. The certificate of public convenience and necessity for this project was awarded in Case Nos. 2009-00197 and -00198 and affirmed in Case No. 2015-00194.

Previously Reported Contract Awards

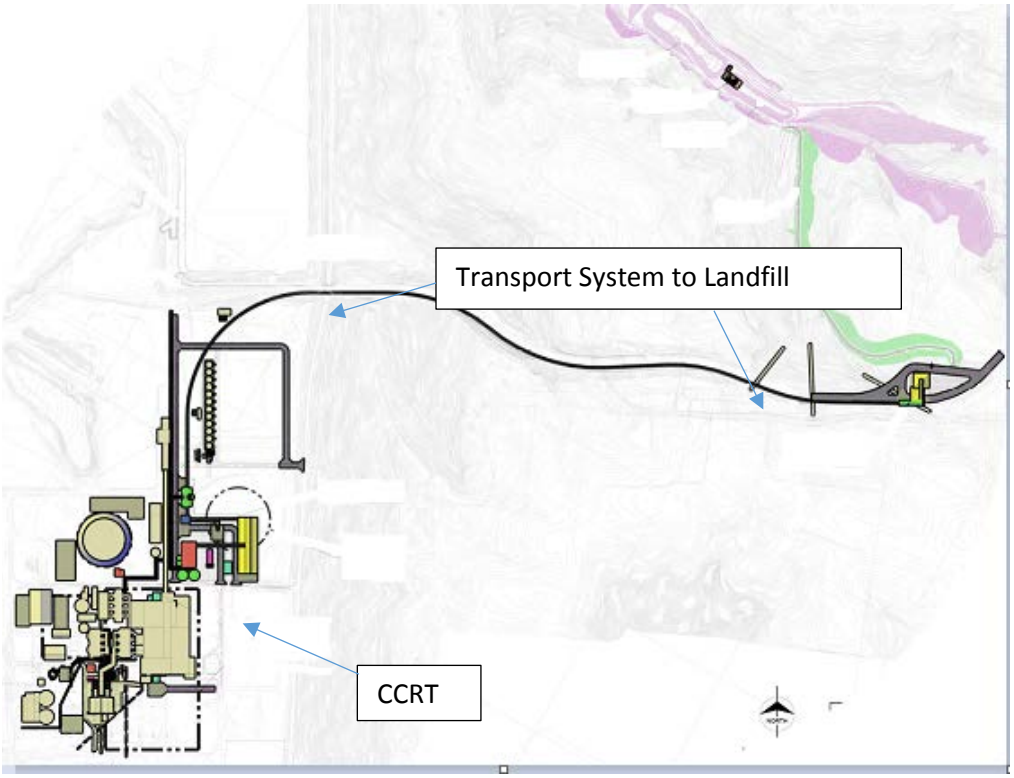
The CCRT Owner's Engineer contract was awarded to B&McD. B&McD has supported various projects for LG&E and KU, and recently supported the Trimble County Unit 1 PJFF capital project. B&McD assisted in the specification development for the CCRT and bottom ash scopes of work, and assisted in the bid evaluations and EPC finalization.

The Landfill Owner's Engineer contract was awarded to GAI. GAI has been the Engineer of Record through the permitting and landfill design phases, as well as the engineering firm that developed the specifications for the road and bridge work.

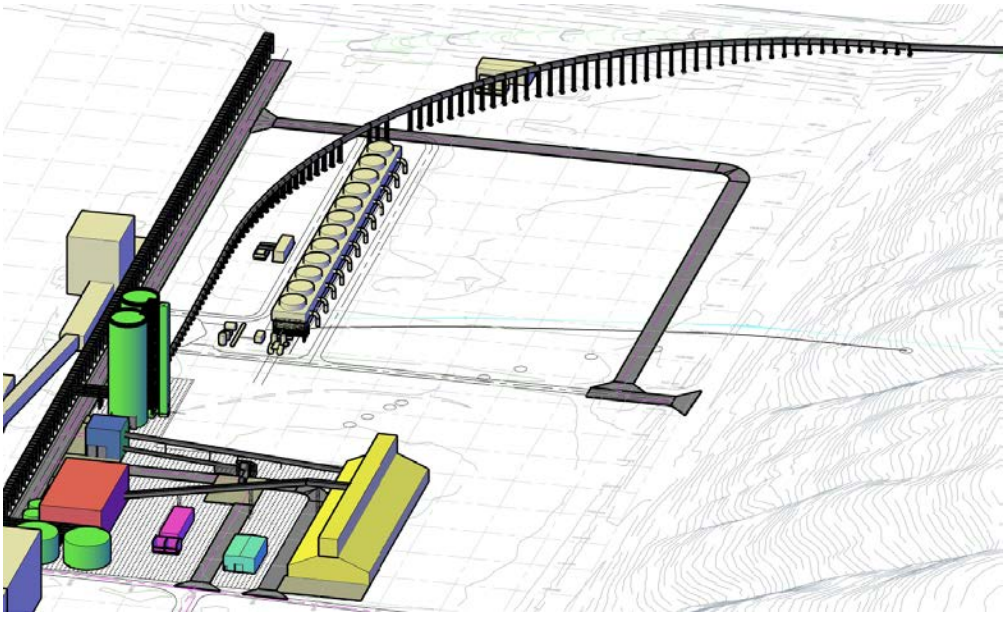
The CCRT and Transport portion of the project was awarded to AMEC. An EPC was executed with AMEC on April 7, 2016. AMEC has performed very well for the Companies in the recent past with completion of the E.W. Brown Unit 3 and Trimble County Unit 1 baghouse projects. AMEC has also been awarded the CCR Rule Process Water System projects for Trimble County and Mill Creek generating stations.

The Phase I Landfill portion of the project was awarded to Charah, a local company. Charah has previously completed successful projects for the Companies, such as the Ghent and E.W. Brown Landfill Phase I projects.

Conceptual Site Layout Graphics



Graphic 1 - Conceptual Layout of the CCRT and Transport System



Graphic 2 - Conceptual 3D Site Layout of the CCRT

Table 1 - Landfill Permitting Status

Required Regulatory Permit	Submitted	Date Submitted	Date Received
Kentucky Division of Waste Management Landfill Permit	Yes	January 3, 2014	February 2017
US Army Corps of Engineers 404 Permit	Yes	April 25, 2014	June 28, 2017
US Army Corps of Engineers Nationwide Permit (Monitoring Wells)	Yes	September 9, 2013	September 2014
Kentucky Division of Water 401 Water Quality Certificate	Yes	April 25, 2014	October 24, 2016
Kentucky Division of Water Dam Safety Permit	Yes	February 15, 2016	August 2016
Kentucky Transportation Cabinet Bridge Permit	Yes	January 30, 2014	February 2015
Kentucky Division for Air Quality Title V Revised Air Permit	Yes	October 12, 2015	December 2015

Note: The underlined dates reflect updates from Application Exhibit 3 in Case No. 2015-00156 filed on May 22, 2015, which the Commission, by order, later consolidated into Case No. 2015-00194.