

# Status Update Report Phase I Trimble County Landfill & CCRT Project Quarterly Report – Update #5 April 28, 2017

#### **Executive Summary**

This report covers progress on the project during the first quarter of 2017, as well as listing any significant events that have occurred to date. Safety performance to date remains excellent with a year-to-date Recordable Incident Rate of 0.00 and an inception-to-date Recordable Incident Rate of 0.00, compared to the industry average of 3.90. Total projected cost remains \$321.9M (net)<sup>1</sup> as provided in Case 2015-00194. Total spend to date has increased from \$82.7M (net) last quarter to \$105.0M (net) through March 31, 2017.

Communications with AMEC - Foster Wheeler (AMEC) (the primary Engineering, Procurement, and Construction [EPC] contractor for the Coal Combustion Residual Treatment System [CCRT] scope of work) continue relative to project management coordination and engineering of final CCRT equipment layouts. The contractual in-service dates remain the fall of 2017 for the Unit 1 Bottom Ash Subproject and the summer of 2018 for the CCRT Fly Ash and Gypsum Subprojects.

The Transport (road to landfill, bridge, and pipe conveyor) subproject completion is now estimated in the third quarter of 2019 due to the delays for the issuance of the landfill's US Army Corps of Engineers' (COE) 404 Permit. The start of construction of the road and bridge scopes remain dependent upon the issuance of the COE 404 Permit. The COE landfill permitting activities with the 404 Permit are ongoing with the draft permit issuance now expected during the second quarter of 2017. The Kentucky Division of Waste Management (KYDWM) landfill permit was issued on February 15, 2017. The Project background information (i.e., scope, contract awards, conceptual layouts, permitting status) is located in the Appendix.

#### **CCRT & Transport Quarterly Status Update**

LG&E and KU ("Companies") continue to hold monthly project review meetings with AMEC. Weekly project engineering meetings continue and current activities include items such as the review of general arrangements, model reviews and final equipment sizing. Engineering and design work continues for major components: (1) Unit 1 bottom ash submerged chain conveyor awarded to United Conveyor Corporation (UCC); (2) fly ash conditioner and conveying system awarded to UCC; (3) gypsum dewatering vacuum belt filter system awarded to FLSmidth; (4)

<sup>&</sup>lt;sup>1</sup> 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.



gypsum portal scraper reclaimer awarded to Ameco (the same vendor for Ghent's recently commissioned gypsum reclaimer); and (5) pipe conveyor awarded to Beumer Group (same vendor as Ghent's recently commissioned pipe conveyor).

AMEC, with involvement from the Companies, continues the process of procuring equipment and materials, as well as the electrical control subcontract work. Ongoing construction and design activities include site work to grade the CCRT Area, rerouting existing underground utilities in the CCRT Area, constructing underground electrical duct banks, concrete foundations for the fly ash silos and hydro-cyclone feed and reclaim water tanks, as well as reviewing the Distributed Controls System remote input and output point descriptions and installation of site construction power.

The CCR Transport scope has been contractually defined and included in the EPC contract with AMEC. Procurement and construction is not scheduled to start until the necessary permit from the COE is received or imminent; this timing is accounted for in the EPC schedule. The schedule reflects current permit issuance timeframes. The Companies have released AMEC to order the pipe conveyor to maintain the pipe conveyor delivery schedule. Site photographs for the CCRT and Transport systems are provided below:



CCRT Project Area Looking North





CCRT Project Area Looking South

# Landfill Quarterly Status Update

Permitting:

As reported last quarter, the Kentucky Division of Water 401 Dam Safety Permit for the Landfill Sediment Pond dam was issued on August 12, 2016. The Kentucky Division of Water 401 Water Quality Certification was issued on October 24, 2016 and the Kentucky Division of Waste Management permit was issued on February 15, 2017. The remaining permit needed to begin construction is the COE 404 Permit which is now expected to be issued late second quarter of 2017. A permit listing is included as Table 1 in the Appendix.

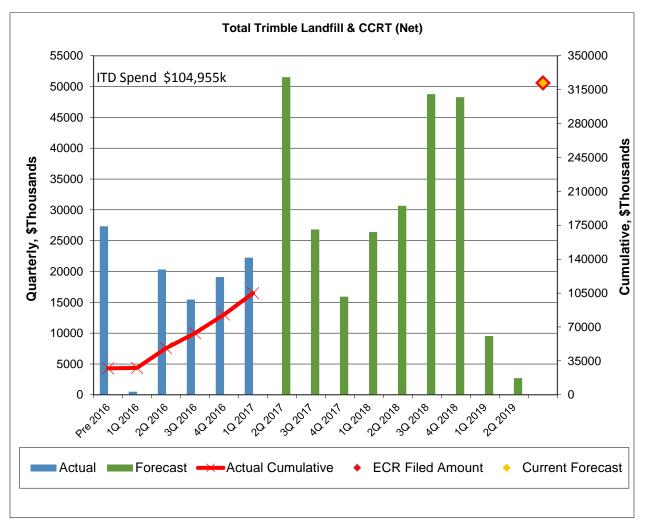
Construction:

B&McD and GAI finalized detailed design, engineering and technical specifications for the Leachate Pump Structure and Landfill Phase 1A construction drawings, respectively. The Companies have completed the bidder selection and are nearing finalization of contract documents and review technical specifications for the TC Landfill Phase 1A project Request for Quotation (RFQ). With the permits expected to be received in late second quarter, the Companies plan to issue the RFQ to the market in April 2017 with an award targeted for August 2017.



## Financials

The forecasted cost for Phase I of the Landfill and the CCRT and Transport scopes remains \$321.9M (net). Total spend through March 31, 2017 is \$105.0M (net) (KU \$50.4M / LG&E \$54.6M). Please note for the graph below: (1) the chart reflects the awarded EPC contract for the CCRT that was awarded to AMEC; (2) the chart includes a symbol () to show the current forecast to completion; and (3) Inception-to-Date (ITD) Spend is shown in the upper left corner.



## **Planned Activities for Next Quarter**

## **CCRT and Transport**

In coordination with the Companies' Owner's Engineer, Burns & McDonnell (B&McD), review of AMEC's engineering and procurement documents will continue. AMEC continues to refine its equipment and piping design model based on field data laser scans and site surveys. B&McD, AMEC and the Companies continue to review the Distributed Controls System hardware and software configuration, design for all major foundations, water balances, and reclaim water piping material specifications. AMEC will continue releases of purchase orders for equipment and



material during the second quarter of 2017. AMEC will continue site work activities rerouting existing underground utilities in the CCRT Area, continue fabrication of the hydrocyclone feed and reclaim water tanks, construction of the underground electrical duct bank and concrete foundations for buildings and equipment. The major subcontractor responsible for constructing the fly ash silos will mobilize to the site during the second quarter of 2017.

#### Landfill

The Companies plan to meet with the COE and US Environmental Protection Agency to accelerate the issuance of the 404 Permit. Plans also include issuing the Landfill RFQ to the market. Final review of the technical specifications is now planned for April 2017. Evaluation of Stream Mitigation "in-lieu of fees" or acquisition of banked credits will also continue. The Companies continue to pursue the purchase of land within close proximity of the landfill area for future clay/soil borrow for the long-term operation of the landfill and to provide a buffer area between local residents and the future landfill operation.



# APPENDIX

#### Scope

The Trimble County Landfill and CCRT Project scope comprises three sub-scopes: 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 KY1838, 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 four (4) construction 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 with this CPCN.

#### **Previously Reported Contract Awards**

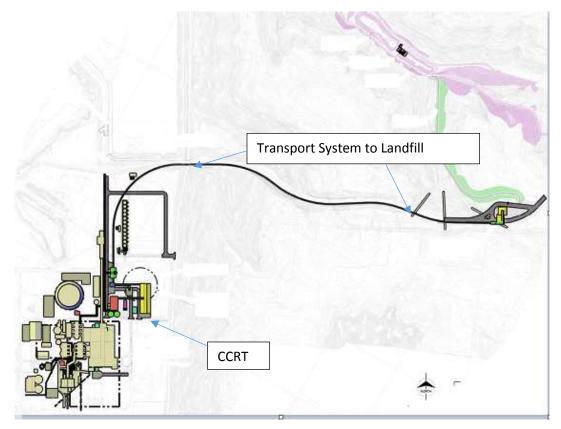
The CCRT Owner's Engineer contract was awarded to B&McD. B&McD has supported various projects for LG&E and KU, and recently supported the Trimble County Unit 1 PJFF capital project. B&McD assisted in the specification development for the CCRT and bottom ash scopes of work, and assisted in the bid evaluations 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. It is anticipated that GAI will be retained to assist construction oversight and adherence to the specifications and permit conditions.

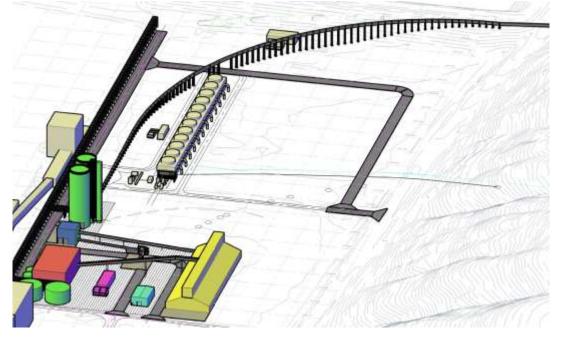
The CCRT and Transport portion of the project has been awarded to AMEC. The initial RFQ was issued in July 2015. Four (4) bids were received in October 2015. Negotiations with the shortlisted bidders began in January 2016 and AMEC emerged as the best evaluated bidder. Final negotiations and finalization of scope continued with AMEC through March 2016 and an EPC was executed with AMEC on April 7, 2016.



# **Conceptual Site Layout Graphics**



Graphic 1 - Conceptual Layout of the CCRT and Transport System



Graphic 2 - Conceptual 3D Site Layout of the CCRT



Required Regulatory Permit	Submitted	Date Submitted	Date Received Or Current Date Expected By
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/July 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	<u>October 24, 2016</u>
Kentucky Division of Water Dam Safety Permit	Yes	<u>February 15, 2016</u>	<u>August 2016</u>
Kentucky Division of Water Flood Plain*	Yes	<u>April 2017</u>	November 2017
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

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.

\*This permit is not required for landfill construction.