

# Status Update Report Phase I Trimble County Landfill & CCRT Project Quarterly Report – Update #1 May 13, 2016

#### **Executive Summary**

Safety performance to date is excellent with a year-to-date Incident Rate of 0.00 and an inceptionto-date Rate of 0.00, compared to the industry average of 3.90. Total projected costs are based on \$321.9M (net)<sup>1</sup> as provided in Case 2015-00194. Total spend to date is \$27.8M (net) through March 31, 2016. The primary Engineering, Procurement, and Construction (EPC) for the Coal Combustion Residual Treatment System (CCRT) scope of work has been awarded to AMEC, the same contractor utilized for the Trimble County Unit 1 and Brown Unit 3 pulse jet fabric filters (PJFF). The contractual in-service dates are: (1) Unit 1 Bottom Ash Subproject – fall 2017; (2) CCRT Fly Ash and Gypsum Subprojects – summer 2018; (3) Transport (road to landfill, bridge and pipe conveyor) Subproject – summer 2018; however, the start of construction of the road and bridge are dependent upon the landfill permit issuance. Project Engineering and station engineers have begun coordinating with AMEC on various equipment procurement packages and initial engineering activities.

#### Scope

The Trimble County Landfill and CCRT Project scope comprises three (3) 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 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.

#### **Contract Awards to Date**

The CCRT Owner's Engineer contract was awarded to Burns & McDonnell (B&McD). B&McD has supported various projects for LG&E and KU, and recently supported the Trimble County Unit

<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.



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 contracted in the past to support permitting and landfill capital projects. GAI developed the specifications for the road and bridge, and has been the engineer of record on the design and permitting of the new landfill.

The CCRT and Transport portion of the project has been awarded to AMEC. The initial request for quotation 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.

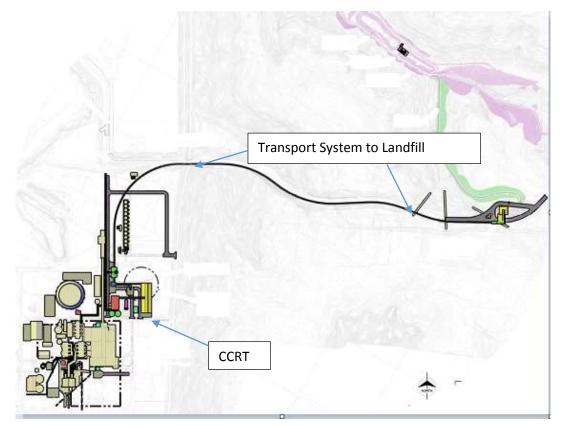
## **CCRT & Transport Quarterly Status Update**

LG&E and KU held a kick-off meeting with AMEC May 9-11, 2016. Weekly project meetings have been ongoing and current activities include items such as the finalization of general arrangements and performing the electric power study. The electric power study is a rigorous evaluation of the existing plant loads and design tool required to integrate the new CCRT power loads. AMEC, with involvement from LG&E and KU, is executing subcontract awards for major components, such as: (1) Unit 1 bottom ash submerged chain conveyor to United Conveyor Corporation (UCC); (2) fly ash conditioner conveying system to UCC; (3) gypsum dewatering vacuum belt filter system to FL Schmidt; (4) gypsum portal scraper reclaimer to Ameco (same vendor as Ghent); and (5) pipe conveyor to Beumer (same vendor as Ghent). In addition AMEC, with involvement from LG&E and KU is currently in the process of procuring the road and bridge work. Current construction activities include laser scanning the existing facilities, designing foundations, and other geotechnical investigations to prepare for a planned mobilization in fall 2016.

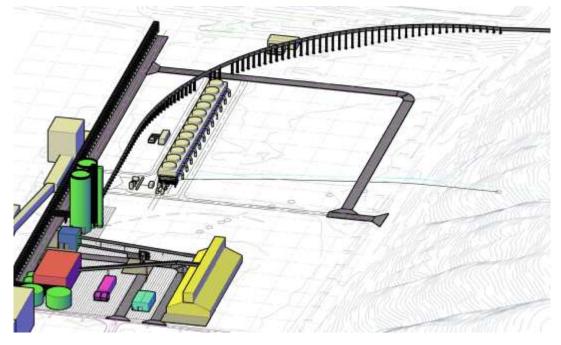
The CCR Transport scope has been contractually defined and included in the EPC with AMEC; however, the start of procurement and construction is not scheduled to start until the landfill permit is received or imminent; this timing is accounted for in the EPC. Current projections anticipate permit receipt in October 2016. The EPC allows AMEC to proceed with a partial release to begin engineering to avoid impact to the pipe conveyor delivery and to allow finalization of the fly ash system design because the pipe conveyor is integral to the silo design. The conceptual layouts for the CCRT and Transport systems are provided on the following page.



# **Conceptual Site Layout Graphics**



Graphic 1 - Conceptual Layout of the CCRT and Transport System



Graphic 2 - Conceptual 3D Site Layout of the CCRT



#### Landfill Quarterly Status Update

The Kentucky Division of Waste Management (KDWM) permit application Notice of Deficiency (NOD) #2 was received on January 16, 2015. The LG&E and KU response was submitted on June 26, 2015. On March 11, 2016, the KDWM NOD #3 was received. LG&E and KU, with assistance from GAI, are currently developing a response and have planned a submittal on May 31, 2016. The receipt of three NODs is not unusual and reflects standard practice from the State, occurring on both the Ghent and Brown landfill permit applications. All activities with the US Army Corps of Engineers (COE) and other governmental agencies are trending very well. LG&E and KU are expecting approval from the COE after the receipt of State approval. An updated permit listing is included below.

The landfill construction request for quotation is currently in the developmental stage with a target issuance to the market in September 2016. Technical specifications are nearly fully developed (~85% complete) and commercial documents are also being developed (~50% complete). Project Engineering is currently vetting potential bidders relative to financial strength, safety record, recent performance on similar work, and availability to finalize a bidders list.

Required Regulatory Permit	Submitted	Date Submitted	Date Received Or Expected By
Kentucky Division of Waste Management Landfill Permit	Yes	January 3, 2014	<u>October 2016</u>
US Army Corps of Engineers 404 Permit*	Yes	April 25, 2014	<u>October 2016</u>
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 2016</u>
Kentucky Division of Water Dam Safety Permit	Yes	<u>February 15, 2016</u>	<u>October 2016</u>
Kentucky Division of Water Flood Plain	Yes	<u>March 10, 2016</u>	<u>October 2016</u>
Kentucky Transportation Cabinet Bridge Permit	Yes	January 30, 2014	February 2015
Kentucky Division for Air Quality Title V Revised Air Permit	Yes	<u>October 12, 2015</u>	December 2015

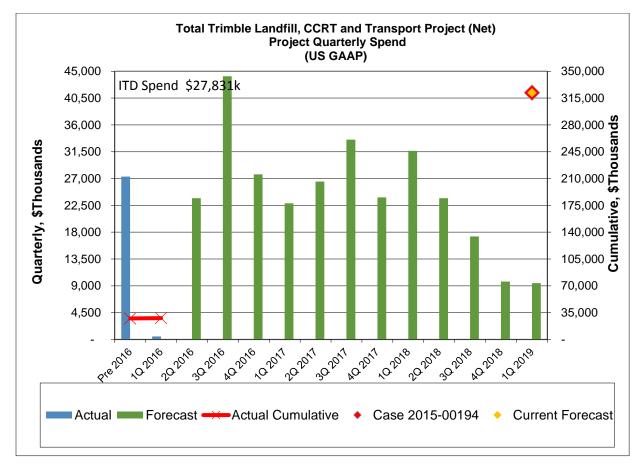
## **Table 1 - Landfill Permitting Status**

The underlined dates reflect updates from Application Exhibit 3 in Case No. 2015-00156 filed on May 22, 2015, which case was later consolidated into Case No. 2015-00194.



## Financials

The cost for Phase I of the Landfill and the CCRT and Transport scopes remains \$321.9M (net). Total spend through March 31, 2016 is \$27.8M (net) (KU \$13.3M / LG&E \$14.5M). The spend to date includes \$13.3M for engineering and legal services, \$7.8M for fly ash barge loading facilities, \$3.7M for additional land and security fencing, \$1.5M for transmission relocation and approximately \$1.5M on other miscellaneous work. Please note for the graph below: (1) the chart reflects the awarded EPC contract 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 of the chart.



#### **Planned Activities for Next Quarter**

## **CCRT and Transport**

In coordination with B&McD, review of AMEC's engineering and procurement documents will continue, including the review of equipment for construction power needed by AMEC to support AMEC's mobilization to site in fall of 2016. A model for the first design review based on field data laser scans will be prepared, and B&McD, AMEC and LG&E and KU will agree on the Distributed Controls System remote input and output count, architecture and design



responsibilities. AMEC will release purchase orders for major components in the second quarter of 2016.

### Landfill

LG&E and KU plan to submit the NOD #3 response to the KDWM by May 31, 2016, and continue to address items needed for permit issuance. To prepare for the September 2016 Landfill RFQ issuance, LG&E, KU, and GAI will continue detailed planning, review of engineering submittals, and evaluation of potential bidders. Concurrently, commercial documents required for Landfill RFQ issuance will also continue to be drafted. Evaluation of Stream Mitigation "in-lieu of fees" or acquisition of banked credits will also continue.