

# MEMORANDUM

<b>To:</b>	Mark Forrester	<b>Organisation:</b>	Worcestershire County Council
<b>cc:</b>	Simon Lewis	<b>Organisation:</b>	Worcestershire County Council
<b>From:</b>	Kerry Booth	<b>Our Ref:</b>	S1291-2300-0003KSB
<b>Date:</b>	13 <sup>th</sup> July 2015	<b>No. of Pages:</b>	3
<b>Subject:</b>	Mercia LTA Construction Progress Summary – July 2015		

## 1 INTRODUCTION

Mercia Waste Management Limited ("Mercia") is constructing the 200,000 tonnes/year, 18 MWe Mercia EnviRecover EfW Plant in Kidderminster, Worcestershire. Fichtner Consulting Engineers Ltd (Fichtner) has been appointed as lender's technical advisor (LTA) for the construction phase of the plant. This summary memo covers relevant activities and progress based on review of latest available reports from the Owner's Engineer (OE) (covering 1<sup>st</sup> – 30<sup>th</sup> April 2015) and Mercia (covering 1<sup>st</sup> – 31<sup>st</sup> May 2015).

## 2 PROJECT PROGRESS

The progress of civil works construction on site in May was good, reflecting the Contractor's updated schedule of works, although overall civil works progress remains three months behind the original programme. As of the end of May, slip forming of the tipping hall and bunker area has been completed, ground anchors have been installed and tensioned and the west access ramp is 75% complete, boiler and FGT hall plinths are being installed, the turbine hall slab is complete and the basement walls are 50% completed and six of the nine ACC pad foundations have been completed.

In general, design and engineering activities are progressing well and are not considered to be on the critical path. All documents received to date are to the standard expected in terms of engineering quality, presentation and detail.

HZI have confirmed that procurement is progressing in line with expectations and that these works are not on the critical path, despite a delay in placing some subcontracts. Of the 28 Major Subcontracts listed in Schedule 7 of the Contract, 27 have now been placed. The remaining subcontract, the Independent Tester, is not due to be let until later in the Project.

HZI have confirmed that manufacturing is progressing as expected and is not currently on the critical path. This is consistent with the progress Fichtner have seen at the factory inspections carried out so far, and the photographs issued with the HZI monthly report. In terms of the key plant items, the grate is now complete and has been delivered; boiler manufacturing is more than 95% complete; plate work for the FGT reactor, bag filter and ducts are complete; engineering of the ACC is 90% complete and manufacture is ongoing; engineering of the turbine is 75% complete, purchase of parts is ongoing and manufacture of the gear box is complete; waste crane manufacturing is 80% complete; engineering of the HV transformer is 70% complete. This progress is accurate as of the end of May 2015.

Construction progress on site during May remained good, with works generally progressing in line with HZI's 4 week look ahead programme. There were no reportable accidents on sight during May, despite a large amount of construction activity being undertaken in a congested area. This reflects attention to health and safety matters.

Mechanical and electrical construction commenced on 29<sup>th</sup> May 2015, which was three days before the projected target date of 1<sup>st</sup> June 2015.

### 3 KEY PROJECT RISKS AND OBSERVATIONS

The key risk to the project remains the 3 month delay in the civil works. The civil works for the turbine hall, ACC and substation were previously removed from Interserve's scope and awarded to Wideurope for the design element and Dawnus for the construction. Work on the turbine hall continues to progress well and there have been no apparent issues arising from the introduction of an additional civil contractor.

Fichtner, acting as Owner's Engineer, identified that there were three separate earthing system designs in existence. Churchill has produced a unified design, which has been reviewed by Fichtner. This has been submitted to Western Power Distribution (WPD) for their comment and approval, and a response is expected in the coming week. HZI have been made aware that should an earthing grid be installed and not be acceptable to WPD, then it could result in expensive re-work and a delay to the project.

Due to delays to the civil works, the construction sequence outlined in the Approved Programme (revision 8) has needed to be amended. Several revisions of the programme have been developed, but the latest revision (revision 12) still contains a number of errors. Therefore, this programme has not been accepted as the Approved Programme. The site generated working time schedule (WTS) has been submitted for acceptance as the Approved Programme, subject to review. This should resolve communication issues between the site and HZI's Zurich based planning department, and will ensure a more accurate representation of the status of the construction progress.

In the absence of an accurate Approved Programme, progress is currently being tracked against the site based 4 week look ahead which is issued on a weekly basis.

In our opinion, the target completion date of 15<sup>th</sup> January 2017 remains ambitious but achievable.

### 4 FINANCIAL AND COMMERCIAL

The cumulative amount which has been certified to date is £28,505,480.76. The LTA has issued three payment certificates to allow drawdown on the senior loan.

Based on the latest information received by the LTA to support a payment certificate, Mercia has made payments for ten milestone events. These 10 payments include three process milestones and seven civil milestones and amount to 47% of the total payment. An additional three milestones have been completed and an invoice has recently been issued, and a request for an LTA payment certificate for these milestones was recently received.

A total of 19 Variation Orders have been issued to date, with the combined impact of an £89k reduction in the contract price.

### 5 HEALTH AND SAFETY

There has been one Reporting of Injuries, Diseases and Dangerous Occurrences (RIDDOR) incident since the start of construction, which occurred in the last month. The incident was a muscle pull due to a slip in the hardstanding area. There was also a first aid treatment for an electric shock to a worker performing maintenance on the site turnstiles. The provision for localised isolation of the turnstiles was found to be inadequate, which has now been addressed.

In the last 2 reporting periods (April and May 2015) 8 safety yellow cards and 2 safety red cards were issued. Although it is disappointing that these incidents occurred, it is encouraging that HZI have dealt with them in a firm manner, which reiterates their commitment to high standards of health and safety. In general, Fichtner consider that there is a good health and safety culture on site.

A hazard and operability (HAZOP) session was held on 29<sup>th</sup> and 30<sup>th</sup> April 2015. Comments have been issued, and a final HAZOP session will be held in the future to close out remaining issues.

**6 PLANNED ACTIVITIES NEXT PERIOD**

At present the following activities are planned from June 2015 onwards:

- Detailed engineering of remaining packages (including boiler, turbine, ACC, instrumentation, etc);
- Completion and issue of additional civil designs;
- Placement of purchase orders for substation control and metering, building services (including fire protection and detection), weighbridges, and pre-cast concrete for the tipping hall suspended floor; and
- Continued manufacture of items currently in work.

Yours sincerely  
FICHTNER Consulting Engineers Limited

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