

# 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>	S1291-2300-0005KSB
<b>Date:</b>	26 <sup>th</sup> November 2015	<b>No. of Pages:</b>	3
<b>Subject:</b>	Mercia LTA Construction Progress Summary – November 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) and Mercia (covering 1<sup>st</sup> – 30<sup>th</sup> September 2015). The report also covers discussion of the civil engineering progress on site through 26<sup>th</sup> November 2015. We are not aware of any issues which have developed since the latest available reports which the Committee should be aware of.

## 2 PROJECT PROGRESS

Overall, progress in September was generally in line with the latest programme, which shows a target Take Over date of 31<sup>st</sup> March 2017, one month after the contractual Take Over date of 28<sup>th</sup> February 2017. HZI maintain that they will endeavour to improve on this date.

The majority of civil subcontractors have now been appointed or retained following the termination of Interserve's contract. The outstanding subcontractor appointment is the building services subcontractor. HZI are currently negotiating this subcontract and the building services designer, who has been appointed under a separate contract, is completing the design so the works can commence.

The other civil design work is substantially complete. There has been a greater level of civil construction progress compared to the previous reporting period. There has, however, been some delay in the progress of the waste bunker and the subsequent commencement of the tipping hall. Whilst there is some remaining float in these programme activities there is a risk that there will be a slight overall delay as progress of the work is slower than expected.

The status of activities on site as of 30<sup>th</sup> September are summarised below.

- Drainage – Drainage installation has been progressed local to the bottom ash building.
- Access ramps – Concrete pouring of the east access ramp is ongoing.
- Tipping hall and bunker area – Pouring of the south crane beam is ongoing. Falsework preparation to the north crane beam is ongoing. Installation of pre cast concrete planks to the east side intermediate floors has continued. Installation of the deep wells in the bunker area has commenced. These wells are required to reduce the ground water level prior to excavation, which is planned to commence in the next period.
- Boiler and Flue Gas Treatment (FGT) hall area – The majority of boiler parts have been lifted into place. Welding of the boiler membrane walls is ongoing. Erection of the FGT steelwork modules is ongoing, with the bag filter compartments and reactor being lifted into place in September. The electrical switch room 'E-houses' were delivered to site in September and were due to be lifted into position in the next period.
- Admin building area – Fire wall cladding is progressing. Erection of the phase 3 steelwork and precast concrete flooring is ongoing.
- Turbine hall – Cladding of the roof has started. Perimeter blockwork and brickwork has started.

- Air Cooled Condenser (ACC) – There is currently no work progressing on the ACC. The ACC foundations were used to site the stack sections so that platform installation work could be carried out closer to the ground.
- Substation and 66kV transformer area – Cable trenches were completed. Earthing conductor installation is ongoing. Installation of the 66kV cable ductwork to the site boundary is ongoing.

### 3 KEY PROJECT RISKS AND OBSERVATIONS

Following termination of the Interserve civil works subcontract on 7<sup>th</sup> July 2015, the majority of replacement subcontractors have now been appointed or a preferred supplier indicated. The key risk is considered to be placement of the building services contract and subsequent production of detailed design drawings to allow on site installation works. Building services is particularly critical as if it is late, it can delay commissioning and prevent waste being delivered to the facility. HZI has made good progress in selecting a building services contractor, and we expect the contract to be signed in the near future.

Fichtner will continue to monitor the situation and provide updates accordingly.

### 4 FINANCIAL AND COMMERCIAL

Payments have now been made for seventeen milestone events. These include seven process milestones and ten civil milestones. The cumulative amount which has been certified to date is £58,942,859.90. The LTA has issued six payment certificates to allow drawdown on the senior loan.

Applications for milestone 18 – Flue gas treatment reactor in position and milestone 24 – boiler drum in position were received in September. Applications for milestone 16 – foundation slab to bottom ash handling system complete and milestone 27 – boiler horizontal pass bundles all in position were received in November.

To date thirty five Variation Orders have been issued. To date the net reduction to the contract price is £38,192. There has been no extension of time for any Variation Orders issued to date.

### 5 HEALTH AND SAFETY

There were no injuries reported in September. Three yellow cards were issued, all in relation to use of an incomplete scaffold for access. Three red cards were also issued: one for unauthorised work on an electrical system; one for use of a mobile phone and threatening behaviour; and one for unsafe work at height.

The Health and Safety Executive completed an unannounced inspection of the site in September. The inspection was successful, with the HSE only making minor observations relating to the selection and wearing of PPE.

Fichtner consider that there remains a good health and safety culture on site, and that the organisation of the site and the level of attention given to health and safety continues to be good. The number and category of site safety observation reports raised are in line with what might be expected at this stage of construction. HZI are remaining firm when dealing with any transgressions of the site rules, which should help maintain the current standards.

### 6 PLANNED ACTIVITIES NEXT PERIOD

The following activities are planned from October 2015:

- Detailed engineering of remaining packages (including turbine control system, refractory lining, waste bunker and tipping hall steelwork, below ground mechanical, electrical and drainage details, etc);
- Placement of purchase orders for a number of process and civil items, including weighbridges, general piping, cabling and cable trays, fire protection and detection, external doors, blockwork and low level waste bunker reinforced concrete works;

- Continued manufacture of items currently in work, including intermediate and final inspections where required;
- Continued work on civil packages including drainage, perimeter retaining wall and access ramp, waste bunker, fuel oil storage, ash storage building, admin building, demineralised water building, hydrated lime and powdered activated carbon silos, turbine hall, high voltage transformer compound, high voltage substation, and DNO control room; and
- Continued work on process packages including boiler assembly, boiler hall balance of plant and steelwork installation, installation of FGT E-containers and ducts, and lifting in of the pipe spools and skids to the turbine hall.

Yours sincerely  
FICHTNER Consulting Engineers Limited



**Kerry Booth**  
Consultant



**Phin Eddy**  
Commercial Director