

# 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>	S1291-2300-0004KSB
<b>Date:</b>	2 <sup>nd</sup> October 2015	<b>No. of Pages:</b>	3
<b>Subject:</b>	Mercia LTA Construction Progress Summary – October 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> – 31<sup>st</sup> August 2015) and Mercia (covering 1<sup>st</sup> – 31<sup>st</sup> July 2015). Fichtner has not been made aware of any issues during the month of September which need to be drawn to the Council's attention. Fichtner will attend the November progress meeting to confirm the civil engineering activities scheduled for October have been completed.

## 2 PROJECT PROGRESS

Construction of process steelwork, boiler construction and civil works on the turbine hall area have progressed well in this period, and has generally been in line with the revised Approved Programme. However, due to the termination of the contract with Interserve and delays in appointing replacement civil contractors, the critical path is now shown to go through the administration block construction and installation of building services. The latest programme 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.

The status of activities on site are summarised below.

- Site wide and temporary works – Drainage installation has progressed when access permits.
- Perimeter retaining wall and access ramps – Concrete pouring of the east access ramp is ongoing.
- Tipping hall and bunker area – Preparation works for pouring of the south crane beam has commenced. Installation of steelwork and precast concrete planks to the west and east cores and hopper shelf sections continues.
- Boiler and Flue Gas Treatment (FGT) hall area – Installation of the economiser and boiler membrane walls is ongoing. Erection of the FGT structural steel cube 101 is due to commence in September.
- Administration building area – Installation of fire wall cladding has commenced. Installation of phase 3 of the administration building steelwork is due to commence in September.
- Turbine hall – Structural steelwork is ongoing with installation of cladding due to commence in September. Lifting in of process equipment is ongoing.
- Air Cooled Condenser (ACC) – All pad foundations are complete. This area is now being used as laydown for the bag filter sections therefore no works on the ACC are progressing.
- Substation and 66kV transformer area – Installation of the earthing grid and the 66kV equipment plinths has commenced and is due to be completed in the September. The transformer blast walls and bund are complete. Structural steelwork for the DNO control room is also complete.

- Perimeter retaining wall and access ramps – Removal of the temporary earth ramp is complete and cleaning of the perimeter retaining wall continues in preparation for pouring of the permanent reinforced concrete east ramp.

### 3 KEY PROJECT RISKS AND OBSERVATIONS

The appointment of replacement subcontractors following the termination of Interserve's contract and the progress of the civil works, particularly building services design, remains the key risk to the project. Delays in appointing replacement subcontractors has resulted in poor civil construction progress. HZI are now predicting a Take Over date of 31<sup>st</sup> March 2017, one month after the contractual Take Over date. The critical path in the programme now runs through construction of the administration building.

It is critical that the building services and fire detection/suppression contracts are placed by the dates shown in the latest programme. The timing of awarding these contracts, and the commencement date for installation of the admin block phase 3 structural steel will determine if the projected Take Over date is likely to slip further.

HZI have advised that the late shift (19:00 to 02:00) and Sunday working (which has been agreed with Worcestershire Regulatory Services) is available for acceleration of specific works. These time periods will be used by:

- individual contractors to meet their contractual deadlines;
- by HZI to fit in activities (such as the drainage at the -8m level) which conflict with other works; and
- to progress critical path items such as the administration block steelwork.

Provided the key contract award dates are met, additional working hours means there is still potential for the Take Over date to be earlier than currently forecast. Fichtner will continue to monitor the situation and provide updates accordingly.

### 4 FINANCIAL AND COMMERCIAL

Payments have now been made for thirteen milestone events. These include four process milestones and nine civil milestones and amount to 64.5% of the total payment. The cumulative amount which has been certified to date is £39,364,723.16. The LTA has issued four payment certificates to allow drawdown on the senior loan.

No milestone payments were applied for in July or August. An application for milestone 18 - Flue gas treatment reactor in position, is expected in September.

To date twenty seven Variation Orders have been issued, of these three have involved a reduction to the contract price, and one an addition. To date the net reduction to the contract price is £89,463. There has been no extension of time for any Variation Orders issued to date.

Cost proposals are outstanding for 5 additional items requested by Mercia. It was agreed that these costs will be offset against the saving from not providing a concrete lining wall to the perimeter secant piles, which has been requested by HZI. Once prices have been agreed Variation Orders will be issued wherever there is a change to the contractual requirements.

### 5 HEALTH AND SAFETY

There were no injuries reported in July or August. However, there was a significant increase in disciplinary action with thirteen yellow cards and three red cards issued in July and seven yellow cards and one red card issued in August. Eight of the yellow cards related to incorrect use of personal protective equipment (PPE), two in relation to poor supervision and ten to working at height. Two of the red cards related to failure of an alcohol test at the induction and two to working at height. HZI have stated that, in line with the current phase of construction, they are focussing on working at height practices and that this is reflected by the increased number of SSORs raised in this category in August. Any transgressions are also being dealt with through the disciplinary system to make sure that high standards are maintained.

Despite the increase in disciplinary action, 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 fact that disciplinary action is being taken where appropriate, shows that HZI are remaining firm when dealing with any transgressions of the site rules, which should help to maintain the current high standards.

## **6 PLANNED ACTIVITIES NEXT PERIOD**

At present the following activities are planned for September 2015:

- Detailed engineering of remaining packages (including boiler piping, turbine control, electrical engineering, instrumentation, various civil packages, etc);
- Placement of purchase orders for a number of process and civil items, including weighbridges, waste bunker excavation and construction, external doors and blockwork and request for quotations on a number of additional civil packages;
- Continued manufacture of items currently in work, including intermediate and final inspections where required;
- Continued work on civil packages including drainage (as access permits), perimeter retaining wall and access ramp, waste bunker, admin building, demineralised water building, turbine hall, high voltage transformer compound, high voltage substation, and DNO control room; and
- Continued work on process packages including boiler pre-assembly and assembly, boiler hall ductwork and grate installation, installation of FGT steelwork and installation of ducting and fabric filters, and installation of the turbine to ACC steam duct.

Yours sincerely  
FICHTNER Consulting Engineers Limited

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