

Our Ref: DA/TM/1970-01/FC

24<sup>th</sup> April 2018

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planning

transportation  
planning

environment

design

Dear Miss Fitch

**APPLICATION FOR FULL PLANNING PERMISSION FOR THE CONSTRUCTION AND DEVELOPMENT OF A WASTE RECOVERY FACILITY (WATERBEACH WASTE RECOVERY FACILITY – WWRF) AT LEVITTS FIELD, WATERBEACH WASTE MANAGEMENT PARK (WWMP), ELY ROAD, CAMBRIDGE. COMPRISING THE ERECTION AND OPERATION OF AN ENERGY FROM WASTE FACILITY TO TREAT UP TO 250,000 TONNES OF RESIDUAL WASTE PER ANNUM, AIR COOLED CONDENSERS AND ASSOCIATED INFRASTRUCTURE; INCLUDING THE DEVELOPMENT OF AN INTERNAL ACCESS ROAD; OFFICE/WELFARE ACCOMMODATION; WORKSHOP; CAR, CYCLE AND COACH PARKING; PERIMETER FENCING; ELECTRICITY SUB-STATIONS; WEIGHBRIDGES; WEIGHBRIDGE OFFICE; WATER TANK; SILOS; LIGHTING; HEAT OFF-TAKE PIPE; SURFACE WATER MANAGEMENT SYSTEM; HARDSTANDING; EARTHWORKS; LANDSCAPING AND BRIDGE CROSSINGS.**

**LPA REFERENCE: S/3372/17/CW**

### **INFORMATION SUBMITTED TO PROVIDE FURTHER CLARIFICATION**

I write with reference to the above application for planning permission and specifically your email to me of the 26<sup>th</sup> March 2018 in which you set out a number of points which you required clarifying to enable you to determine the planning application.

In addition to the responses set out below, we have separately written to you providing information which we believe represents additional substantive environmental information. As the relevant determining planning authority, you will need to satisfy yourself as to whether any of the information provided below, or that provided to you under separate cover, constitutes additional information under the definition set out in Regulation 22 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011. If you conclude that all or part of the information provided does, then you will need to follow the notification and consultation procedures set out under Regulation 22.

### **Fire Water**

Clarification has been sought by, amongst others, the Cambridgeshire Fire and Rescue Service, as to details regarding the provision of emergency water supplies for the site. At this stage a specific fire strategy for the proposed Waterbeach Waste Recovery Facility (WWRF) has yet to be produced as the fire risk evaluation has yet to be developed by the WWRF technology provider in conjunction with the applicant. Notwithstanding this, the

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fire strategy adopted for the facility would ensure that the following requirements are considered and addressed within the final design:

#### *Life Safety*

- Building Regulations 2010 (Fires Safety, Approved Document B, Fire Safety for Buildings other than Dwelling houses) as guidance for meeting the life safety requirements.

#### *Property Protection and Management*

- NFPA 850 Recommended Practice for Fire Protection of Electric Generating Plants and High Voltage Direct Current Converter Stations, 2010 Edition published by the National Fire Protection Association;
- Chubb (ACE) Technical Guide - Energy from Waste EfW - Fire Systems. (Issue 1.0, 26 March 2014);
- Chubb (ACE) Technical Guide - Waste Processing Plants - Fire Systems (Issue 1.0, 26 March 2014).

The fire strategy would be subject to agreement with Building Control, the Fire and Rescue Service and Insurers and would be subject to revision in accordance with their requirements as the design of the plant is finalised.

Whilst the WWRF would have its own fire strategy the document would be coordinated with the current Contingency and Emergency Plan for the Waterbeach Waste Management Park (WWMP) in order that arrangements are consistent and compatible. The systems installed within the WWRF plant to ensure fire protection and safety would conform to the relevant and latest British and European standards, codes of practice, regulations and laws, including, but not limited to:

- BS EN 671: Fixed firefighting systems;
- BS 5266: Emergency Lighting;
- BS EN 54: Fire detection and fire alarm systems;
- BS 5839: Fire Detection and Alarm systems for buildings;
- BS EN 15004: Fixed firefighting systems – Gas extinguishing systems;
- BS EN 12845: Fixed firefighting systems – Automatic sprinkler systems – Design, installation and maintenance;
- CIBSE Guide Volume E, Fire Engineering, 2003;
- BS 5306: Fire extinguishing installations and equipment on premises;
- BS 5588: Fire precautions in the design construction and use of buildings (only in as much as referred to in the Building Regulations); and
- BS 9999: Code of Practice for Fire Safety in the design, management and use of Buildings.

Whilst the specific arrangements for the provision of fire water would be developed in line with the Strategy outlined above the applicant has at this stage included in the layout for a fire water tank with a volume of approximately 1,000m<sup>3</sup>. The tank is located at the north-west corner of the site and would be fed by a towns water supply. For contingency purposes, the applicant proposes to allow this tank to be fed via pump-set with water from

the attenuation pond at the south east of the site to improve the recharge times and to mitigate for failures in the mains water supply. As an option, the applicant also proposes that in an emergency water could be drawn directly from the attenuation pond to provide firefighting water supplies. To show these arrangements along with the approximate demands for process water within the facility, a simplified water flow diagram is presented in **Appendix [A]**.

The fire tank would be connected to a fire water ring main dedicated to the WWRF which in turn would feed a range of firefighting equipment including (but not limited to) hydrants, remotely operated fire cannons (in the bunker), sprinklers, water sprays and fire hose reels. An automatic fire detection and alarm system would be provided and would be designed in accordance with BS5839-1 by a suitably qualified, experienced and registered fire protection engineer. Access to the facility by the fire service in an Emergency would be via the main entrance and then via the haul road to the site, as shown on **Figure [1] and [2]**.

### Energy Statistics

In your email of 26<sup>th</sup> March 2018, you have asked for confirmation as to the way in which we have used energy statistics to calculate the equivalent number of homes that could be supplied power by the proposed facility. You have also provided us with the opportunity to respond to the claim that, when compared to other energy figures quoted from other facilities in the Country, the benefits of the scheme appear to have been exaggerated within the application documents.

Information on the estimated electricity that could be exported to the local electricity distribution network and the homes equivalent this could supply, is presented in Section 12.4.23 Chapter 12 (Socio Economic Effect) of the Environmental Statement (ES).

During the pre-application process, the values that were used to estimate the potential number of homes that could be supplied by the facility was based on the information available at that time. The applicant confirmed that; based on the facility being capable of exporting 24.4MWe of power and the plant running for 7,800 operating hours per year, the calculated amount of energy being generated by the facility would be around 190,320 MWh per annum. To calculate the number of homes that could be potentially supplied, this is divided by 4,000kWh (the assumed annual electrical consumption value of a domestic dwelling). This equates to 47,580 homes, which for the purpose of the pre-application documentation was rounded down to 45,000 homes.

In finalising the Socio-Economic Assessment, the applicant reviewed this calculation, updating the draft assumptions presented during the pre-application engagement. The data contained within the application assumes that the facility is capable of exporting 24.4MWe of power over 8,000 operating hours (a design parameter requirement for the proposed plant) which equates to 195,200 MWh per annum. Typical Domestic Consumption Values were updated to reflect up-to-date information provided by Ofgem, specifically the 2017 Typical Domestic Consumption Values of a Profile Class 1 Domestic User.

The table below provides a summary of the possible homes that could be supplied by the facility using the 195,200 MWh of energy produced by the plant per annum and using the Ofgem "Typical Domestic Consumption Values of a Profile Class 1 Domestic user" for 2017.

OFGEM 2017 - Typical Domestic Consumption Values of a Profile Class 1 Domestic user	Number of equivalent homes supplied	Number of equivalent homes supplied (rounded)
Low (1,900 kWh)	102,737	103,000
Medium (3,100 kWh)	62,968	63,000
High (4,600 kWh)	42,435	42,000

For the purposes of the Socio-Economic Assessment, the applicant selected the "Medium" range profile i.e. 62,968 homes (rounded to 63,000 homes) to illustrate the number of homes equivalent that could be supplied by the facility.

Due to the use of different data sets and operating variables in the calculations it is often not possible to make direct comparisons with other energy from waste plants in this respect. Reasonable variables that would influence the figure used for illustrative purposes, include:

- Hours of operation;
- Technology type;
- Technology efficiency;
- Domestic energy use and efficiency;
- Change over time; and
- Contract requirements.

#### Direct Heat

Your email of the 26<sup>th</sup> March 2018 seeks a number of clarifications in respect of the potential for the delivery of heat from the WWRF and the anticipated timescales for implementation. The proposed development has been designed to export up to 24.4MW<sub>e</sub> of power and up to 10.0 MW<sub>th</sub> of heat, subject to technical and economic feasibility. In this instance, there are two large scale residential developments (a 6,500-house development promoted by the developer Urban & Civic, and a 4,400 house development promoted by the developer RLW) that are in the initial planning stages and are located in close proximity to the proposed Waterbeach Waste Recovery Facility (WWRF). When constructed these two developments would have a total heat demand estimated to be 81,750 MWh/year. As a result, they represent strong opportunities for the delivery of direct efficient and sustainable heat from the WWRF.

Clarification has been sought as to the distance that heat could be piped from a facility such as the WWRF and continue to be economically viable.

Modern heat-insulated piping technology enables hot water to be transferred large distances without significant losses; best industry practice requires that the total annual heat loss from the network should not exceed 10% of the sum of the annual heat consumption of all consumers connected. Since proposals in this case are centred on new-build consumers, it may be possible to reduce system operating temperatures and hence heat losses. The network design should however be developed to minimise the overall length of the network and hence reduce costs and heat losses, including considering higher specification pipeline insulation. For a facility of this type, the Environment Agency (EA) guidance means that the applicant is obliged to consider heat export opportunities within 10km of the proposed development. At a distance of under 2km, the proposed barracks development and research park are well within technically

feasible export limits. Networks of this order of magnitude are not uncommon. A detailed engineering assessment would be required to determine the optimum route for connection, accounting for finalised development masterplans, buried services, and other topographical barriers.

In their consultation response to you, South Cambridgeshire County Council questioned how the heat pipe connection would be secured and delivered and by when.

The installation of the heat pipe is dependent upon a future commercial agreement between the future developers of the New Town (or an alternative appropriate heat user) and the developer of the WWRF (the heat supplier), and therefore the delivery of it cannot be guaranteed as part of this application. Installation of the pipelines is capital intensive and the applicant would require some level of security that capital and operational costs could be recovered. Also, installing pipes too far ahead of actual use can lead to corrosion issues unless specific preservation measures are put in place. Timescales for installation of the pipeline would need to align with construction of the residential developments in order to maximise the likelihood of connection. Based on projected build out rates, installation completion in the early 2020's would be optimal, but will depend on progression of the residential developments through the planning process and willingness of the developers to enter into commercial agreements. For a network of this size, the heat export infrastructure could be installed indicatively within 18 months. However, the route to the site boundary can be confirmed and safeguarded at WWRF design stage and this could be secured by a planning condition.

The Secretary of State has set precedent, when determining a number of planning applications for similar development proposals, that contracts for the supply of heat and power cannot reasonably be expected to be entered into prior to planning permission being obtained. Furthermore, significant weight should be given in favour of such proposals irrespective of that fact. The important factors in deciding the weight to be given to the opportunity in favour of a project is the proximity of a plant to potential customers for the heat and the obvious factors that may exist which would prevent its delivery. In this case, the New Town (heat user) and the WWRF (heat supplier) are being delivered within broadly the same timescales and are located in close proximity to each other.

In order to realise the proposed network, the applicant would view favourably any planning conditions that require future housing developers to seriously consider connection to the proposed heat network, especially given the favourable circumstances in this case. Any fiscal support made available through the Council's prudential borrowing powers or access to central Government subsidies (HNIP or HNDU) could be utilised to support the economic case. Furthermore, it is evident that a district heating network of this nature, with heat supplied from a low carbon and (partially) renewable source, would align with Cambridgeshire County Council's Energy Strategy and the UK's wider decarbonisation targets.

The WWRF would need to operate in compliance with both its planning permission and an environmental permit and as set out above, EA guidance means that an applicant is obliged to consider heat export opportunities. In order to provide reassurance through the planning system, the applicant would accept a condition on the grant of planning permission, similar to that imposed on other Combined Heat and Power (CHP) ready energy from waste facilities across the UK, that provides for ongoing monitoring and full exploration of potential commercial opportunities. The applicant has therefore provided the following suggested model condition:

## SUGGESTED DRAFT HEAT CONDITION

*“Commissioning shall not commence until a CHP Feasibility Review assessing potential commercial opportunities for the use of heat from the development shall be submitted to, and approved in writing by, and deposited with the Waste Planning Authority. This shall provide for the ongoing monitoring and full exploration of potential commercial opportunities to use heat from the development, and for the provision of subsequent reviews of such commercial opportunities as necessary. Where viable opportunities for the use of heat in such a scheme are identified, a scheme for the provision of necessary plant and pipework to the boundary of the site shall be submitted to, and approved in writing by, and deposited with the Waste Planning Authority. Any plant and pipework installed to the boundary of the site to enable the use of heat shall be installed in accordance with the agreed details.*

*Reason: To maximise the energy benefits of the development and in accordance Policies with DP/1 (Sustainable Development) and NE/2 (Renewable Energy) of the South Cambridgeshire Development Framework DPD”.*

### Carbon Assessment

The planning application was accompanied by a Carbon Assessment (Planning Appendix 1.6) that identifies the carbon benefit of processing waste in the proposed facility compared to disposal in landfill under a number of assumptions. UKWIN has provided a consultation response to you that raises a number of specific questions with regard to the assumptions applied and the conclusions drawn. Within your email of the 26<sup>th</sup> March 2018 you asked for our response to the concerns raised. Please find at **Appendix [B]** to this letter a full response to the comments made by UKWIN.

### Statement of Community Involvement

The planning application was accompanied by a Statement of Community Involvement (SCI) dated December 2017 (Planning Document Part 5). The SCI summarises the steps that the applicant took to inform the local community about the proposals and the feedback obtained. Within your email of the 26<sup>th</sup> March 2018 you asked whether the SCI would be updated to reflect the public information sessions undertaken post submission of the planning application. Please find at **Appendix [C]** to this letter an update to the December 2017 SCI setting out an overview of ongoing and additional community engagement activity undertaken since submission of the planning application.

### Landscape and Visual

On your behalf, The Landscape Partnership (TLP) was commissioned to review and provide comment on Chapter 5.0 (Landscape and Visual Impact Assessment - LVIA) of the Environmental Statement (ES) along with the LVIA Methodology (Appendix 5.1); Baseline Character Assessment (Appendix 5.2); Viewpoint Selection (Appendix 5.3); Effects on Landscape Character (Appendix 5.4); and Effects on Viewpoints (Appendix 5.5). In addition, both South Cambridgeshire District Council and East Cambridgeshire District Council have made comments within their representations to elements of the LVIA.

TLP has undertaken a comprehensive review of the methodology used in the LVIA and the assessments of effects, and broadly agree with the conclusions of the applicant in both regards. In terms of design evolution, TLP recognise that the applicant has

demonstrated a clear process for minimising the visual effects of the development and broadly speaking agree with the design approach and the mechanisms used. Your email of the 26<sup>th</sup> March 2018 asks for any response we may wish to provide on the points made, particularly in relation to colours and materials.

The design evolution is set out within the Design Evolution Document (Planning Document Part 2). The design choices have been influenced by a number of factors including topography, functionality, receptor type and location, existing buildings and structure, as well as the views of project stakeholders and members of the community. TLP has clearly recognised this process that has been followed and conclude that the fundamental elements of the design provide an appropriate solution for providing an energy from waste plant in this location.

Nevertheless, they consider that there are opportunities to explore additional design solutions, which are not fundamental aspects of the proposed development, and are in any case somewhat subjective judgements. Specifically, they have commented that the north-east elevation is primarily composed of one main built mass that uses the same material which could be improved by using an appropriate variety of material types and colours. In addition, TLP has identified that there is no additional landscape treatment proposed along the north-western boundary of the site resulting in a *“highly visible elevation to the adjoining areas of landscape and views”*. It is our view that the mitigation package as submitted sufficiently softens and reduces the impacts of the WWRF, however we recognise that the measures proposed by TLP could go to help further integrate the development and thereby reduce its overall impact. The applicant therefore provides the following suggested model condition(s) to be imposed on the grant of any planning permission.

#### SUGGESTED DRAFT MATERIALS SAMPLE AND LANDSCAPING CONDITIONS

*No development hereby permitted (excluding Enabling Works) shall commence until details, colours and samples of the materials, to be used for the external walls, roof, doors, and windows of the buildings have been submitted to and approved in writing by the Waste Planning Authority. The development shall be carried out in accordance with the approved details unless otherwise agreed in writing with the Waste Planning Authority.*

*No development hereby permitted (excluding Enabling Works) shall take place until full details of hard and soft landscaping works have been submitted to and approved in writing by the Waste Planning Authority. Such scheme shall include details of all hard-surfacing treatments and all means of enclosure. Soft landscaping shall include full details of the new planting, including the number, height, type, species and spacing. The approved scheme shall be implemented in full.*

*Reasons: In the interests of visual amenity and in accordance with Policy CS33 (Landscape) of the Cambridgeshire and Peterborough Core Strategy DPD and DP/2 (Design), DP/3 (Development Criteria) and NE/4 (Landscape) of the South Cambridgeshire DPD.”*

#### Lighting Assessment

In your email of 26<sup>th</sup> March 2018, you have asked how we would like to respond to the comments made by East Cambridgeshire District Council in relation to light pollution. East Cambridgeshire District Council stated that any light pollution from the building will

need to be kept to an absolute minimum and only for health and safety reasons to ensure minimal impact on the surrounding dark skies. Section 4.2.54 – 4.2.63 of the ES describes the need for external lighting. It states that the need to ensure safe working and living conditions would be balanced against the requirement to reduce any unwanted visual prominence of the WWRF at night and to address any ecological constraints. The lighting design for the WWRF seeks to provide safe and well-lit external space and pedestrian walkways in accordance with a range of best practice set out within the ES.

In their representation to you, South Cambridgeshire District Council state that Chapter 5.0 (Landscape and Visual Impact) and Chapter 10.0 (Cultural Heritage) of the ES do not fully assess night-time lighting impact. The Lighting Assessment was undertaken by assessing an Outline Scheme of Lighting (OSL). It identifies a range of national and local guidance relevant to the assessment of night-time lighting impact. In absence of statutory guidance, the Institute of Lighting Professionals (ILP) (2011) Guidance Notes for the Reduction of Obtrusive Light (the 'ILP Guidance Notes') was considered the most appropriate criteria against which to assess the effects of artificial lighting on residential receptors, ecology and heritage assets. Based on the OSL, the assessment demonstrates that the development would be compliant with the criterion for assessment of impact against ecology, heritage assets and residential receptors, and would not be likely to give rise to significant environmental effects in terms of night-time lighting. We suggest that these criteria are reasonable and South Cambridgeshire District Council has not suggested that they disagree.

Given the fact that the Lighting Assessment demonstrates that it would not be likely to give rise to significant effects, we disagree that further assessment need be provided in either Chapter 5.0 or Chapter 10.0 of the ES.

Despite the above, the Lighting Assessment submitted as an appendix to the Planning Statement has now been provided as an appendix to the Environmental Statement Volume 5: Additional Environmental Information.

In order to address the comments raised by East Cambridgeshire District Council, the applicant would accept a condition on the grant of planning permission that provides reassurance that the implemented lighting scheme meets the level of protection afforded by that used as the Outline Scheme for assessment purposes. The applicant proposes the following suggested model condition:

**SUGGESTED DRAFT LIGHTING CONDITION**

*“The proposed development shall be externally lit in accordance with the Outline Scheme of Lighting provided within Appendix 1.7 of the Planning Statement unless an alternative lighting scheme is submitted to and approved by the Waste Planning Authority prior to occupation of the WWRF. Any alternative lighting scheme should provide as a minimum the same degree of mitigation at that set out within the Outline Scheme of Lighting provided at Appendix 1.7.*

*Reason: To protect the amenity of local receptors and to minimise the impact of the development on identified heritage assets.”*

Location of Waste

Your email of 26<sup>th</sup> March 2018 invites us to respond to the comments made by East Cambridgeshire District Council in relation to where the waste to the facility would come



from. Specifically, East Cambridgeshire District Council has asked if waste would be brought from out of the County, and the impact this would have on the wider highway network and road mileage costs. As a matter of principle, there is no Government Policy that requires an application to demonstrate a need for their development. The National Planning Policy for Waste specifically states that waste planning authorities should only expect applicants to demonstrate a quantitative or market need where proposals are not consistent with an up-to-date plan. If such a requirement is expected, this does not need to be met from within a County boundary, rather the Waste Management Plan for England identifies that the network of waste management installations must enable waste to be managed in one of the nearest appropriate installations (irrespective of administrative boundaries).

Chapter 4.0 of the Planning Statement sets out the need for the WWRF, and we do not propose to repeat that argument again here. To summarise, the plant would be located within the existing Waterbeach Waste Management Park (WWMP) which accepts waste from a variety of sources. Nevertheless, the vast majority of waste to the Park is derived from within Cambridgeshire and Peterborough either as Municipal Solid Waste (MSW) as part of an existing Local Authority Contract, or as Commercial and Industrial (C&I) Waste under third party contracts or open-gate delivery. The vast majority of the waste (circa 75%) that would be treated through the WWRF would be entering the site in any event as part of the on-going role of the WWMP, and would be processed through the energy from waste plant rather than being diverted to landfill. The remaining 66,000tpa (circa 25%) would comprise additional or 'top-up' waste.

The need assessment provided at Chapter 4.0 of the Planning Statement demonstrates that, based on 2016 data, over 216,000tpa of waste suitable for treatment within an energy from waste facility was deposited to landfill in Cambridgeshire and Peterborough generated from within Cambridgeshire and Peterborough. As in the case of the waste currently accessing the site, in the first instance, waste is sourced as locally as possible. This makes economic, social and environmental sense given that, following initial capital investment, the most significant cost and environmental emission contributor in running an energy from waste facility is the physical transport of waste to and from a site. The realities of securing a multi-million-pound investment such as that proposed, are that irrespective of the fact that there is more than sufficient residual waste sent to landfill from Cambridgeshire of a type which could be processed through an energy from waste facility, it would need to have the flexibility to accept waste from further afield. Flexibility is required to enable a facility to compete on an even keel with other facilities across the UK that are not constrained by catchment restrictions. Furthermore, the WWRF would need to be able to accept waste from the applicants existing facilities outside of any agreed local catchment area during periods of routine or emergency shut-down so that waste authorities and tax payers are not 'held to ransom' by other operators during such events.

The applicant recognises that part of the objective of the Cambridgeshire and Peterborough Core Strategy is to ensure that there is not an oversupply of waste facilities which could lead to excessive importation of waste, or that an overreliance is placed on one administrative area to manage the waste of others. Core Strategy Policy CS29 (Need) places an expectation on applicants to enter into restrictions on catchment area, tonnages and / or types of waste. It also recognises that permission may be granted involving importation of waste from outside the Plan area where this is demonstrated to maximise recycling and recovery of waste and be the most sustainable option (as in this case). In light of the above, the applicant would accept condition(s) on the grant of planning permission that provide(s) an appropriate and proportionate restriction on the catchment of waste to the facility. The applicant proposes the following model conditions.

## SUGGESTED DRAFT WASTE SOURCE CONDITIONS

*“Not less than 70% of the waste imported to the site shall originate from a catchment area which shall comprise of Cambridgeshire and Peterborough, their Adjoining Counties and Milton Keynes. Adjoining Counties are Hertfordshire, Suffolk, Essex, Norfolk, Luton, Bedford, Central Bedfordshire Northamptonshire, Rutland, Lincolnshire. For the purpose of clarity waste being processed through any waste transfer station within the defined catchment area shall be regarded as arising from within the catchment area.*

*Reason: To ensure the facility is managing a large percentage of local and regional waste arisings, in accordance with Policy CS29 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy Development Plan Document, July 2011.*

*Priority shall be given at the Proposed Development to the processing of residual wastes suitable for thermal treatment arising from the existing Mechanical and Biological Treatment processes at Waterbeach Waste Management Park.*

*Reason: To enable the Waste Planning Authority to retain control over the future development of the site and allow the operator to move waste up the Waste Hierarchy in accordance with Policy CS29 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy Development Plan Document (2011).*

### Air Quality and Human Health

Your email of the 26<sup>th</sup> March 2018 raises questions regarding air quality emissions, specifically the measures in place to monitor and protect local residents from PM2.5 emissions and details regarding the type of filters to be used. Separately you have asked how we would like to respond to the comments made by East Cambridgeshire District Council in relation to human health. You have also asked if the applicant is proposing to have an “auto-feed” type air quality monitoring system that links to the applicant’s website, similar to that used at the Great Blakenham facility by Suez, so that residents can see the results that are being measured by the stack?

Emissions and human health impacts were appropriately assessed within the Air Quality Assessment reported at Chapter 8.0 of the ES. It states that:

*“8.7.1 The impact of the Proposed Development has been assessed as part of this EIA using industry standard approaches. The main air quality effect would be as a result of emissions from the stack of the Proposed Development. Detailed dispersion modelling of process emissions has been undertaken using a number of conservative assumptions.*

*8.7.2 In summary:*

- The level of the effect of the process emissions at all human sensitive receptors was predicted to be negligible and not significant.*
- The level of the effect of the impact of process emissions at identified ecological sites was predicted to be negligible and not significant.*

*8.7.3 In addition to the assessment against the AQALs, a Human Health Risk Assessment has been undertaken to determine the long-term impact of pollutants which can accumulate within the body. This has shown that the impact of emissions on human health would be negligible and not significant.*

*8.7.4 The Proposed Development also has the potential to cause impacts associated with the release of dust and odour. A qualitative analysis has been undertaken, which takes into account the control measure in place and the distance to the nearest receptors. This has concluded that the impact of the operation of the Proposed Development would not be significant.*

*8.7.5 An assessment of the cumulative effects of the Proposed Development has been undertaken. This has concluded that the impact of the operation of the Proposed Development in combination with the identified cumulative developments would not be significant.*

*8.7.6 In conclusion, the Proposed Development is not predicted to have a significant environmental effects in relation to air quality, odour and human health."*

In addition to public information sessions undertaken by the applicant during March 2018, two documents were published aimed at answering questions raised on emissions and health. The first is a Process Emissions Overview Document provided at **Appendix [D]**. The second is an Air Quality and Emissions Q&A Document provided at **Appendix [E]**. The documents include specific discussion on particulate matter (including PM2.5), how they are monitored (continuously), how the bag filter technology works through absolute filtration and absorption, their efficiency, conservative estimates of their performance for the ES and have regard to wider research confirming their suitability as a proven technology. Both documents are available on the applicant's website.

At this point in time, the applicant is unable to confirm the bag filter manufacturers details, however the bag filter supplier would need to meet strict standards required by the Environment Agency to comply with the Industrial Emissions Directive.

East Cambridgeshire District Council has simply stated that the determining body will need to be certain that there will be no emissions that will be detrimentally harmful to human health. On this point we would refer you to the fact that the Environment Agency, Public Health England and South Cambridgeshire District Council as Local Environmental Health Department have all raised no objection to the application, subject to appropriate conditions. We can confirm that, once operational emissions monitoring information similar to that provided for the Great Blakenham facility in Suffolk, will be made available on the applicant's website. The applicant proposes to agree the final format for reporting, once the Continuous Emissions Monitoring System (CEMS) is procured. The Applicant therefore proposes the following condition.

#### SUGGESTED DRAFT EMISSIONS MONITORING PROTOCOL CONDITION

*Service Commencement shall not begin until an emissions monitoring protocol for the Development has been submitted to, and approved in writing by the Waste Planning Authority. Unless otherwise agreed in writing with the Waste Planning Authority, the emissions monitoring protocol shall provide for the publication on the applicant's website of average daily emission levels of;*

- Oxides of nitrogen
- Sulphur dioxide
- Carbon monoxide
- Hydrogen chloride
- VOCs
- Particulate matter

*Reason: In the interests of residential amenity, in accordance with the Cambridgeshire and Peterborough Minerals and Waste Development Plan Policy CS34.*

Air Quality Consultants Ltd (AQC) were commissioned by Cambridgeshire County Council to carry out a review of Chapter 8.0 Air Quality of the ES. AQC identified a number of issues within their report. The vast majority were considered unlikely to affect the conclusions of the assessment. Three issues were identified that were considered may or may not affect the conclusions of the assessment. Clarification is provided on the issues raised within **Appendix [F]**. The clarifications provided demonstrate that the issues identified do not affect the conclusions of the Air Quality Assessment set out at Chapter 8.0.

#### Bottom Ash and APC Residues

You have asked for clarification as to how bottom ash and air pollution control residues would be loaded and transported off-site.

Air Pollution Control Residues (APCR) would be handled within a fully enclosed system. The residues would be stored in sealed silos adjacent to the WWRF building and discharged via sealed connections into fully contained disposal vehicles. These measures would avoid the release of dust from the handling and transfer of this material. All transfers would be controlled under the Environmental Permit, Duty of Care and the receiving facility Environmental Permit or other licensing requirements. A photograph of a typical APCR tanker is provided at **Figure [3]**.

Incinerator Bottom Ash (IBA) Incinerator Bottom Ash is discharged from the process into a bunker within in an enclosed area within the main WWRF building. The Bottom Ash bunker would have sufficient capacity to allow for periods of disruption to vehicle transportation. Bottom Ash would be loaded within the building from the bunker directly into bulk articulated trailers. The bulk trailers will then be covered before leaving the site. A photograph of a typical IBA tanker is provided at **Figure [3]**.

#### Shredder

Clarification has been sought as to the role and location of any shredder to be located within the energy from waste facility, and specifically whether this has been taken into

account as part of the Noise Impact Assessment prepared as part of the EIA. A shredder would be required to be located within the tipping hall section of the energy from waste facility to manage oversized waste such as mattresses which have not been subject to on-site mechanical or biological treatment. The shredder would be used on an “as required / contingency basis” rather than a continuous process requirement. The precise final location of the shredder would be determined during detailed design; however, two possible locations are illustrated at **Figure [4]**.

The Noise Impact Assessment prepared to accompany the application assumed a ‘typical’ internal noise level of 80dB within the tipping hall, albeit not specifically attributed to any one particular noise source. The shredder would be driven by electric motors and during daytime hours only. It would generate a reverberant sound level well within the noise limits for daytime operation and therefore would have no effect on predicted noise levels at receptors with the noise mitigation measures proposed having been implemented.

### Waste Types

Finally, clarification is sought in respect of the waste types to the facility, and specifically reference to ‘C&D’ waste within mass balance information.

To clarify, the “C&D” area of the site is permitted to accept, for processing, treatment and transfer, mixed non-hazardous municipal, commercial and industrial wastes. Historically this part of the Waste Management Park was given the name of “C&D” (Construction & Demolition) and is still used to differentiate it from other areas at the Waste Management Park, therefore this naming approach may have unintentionally led to confusion.

The six most likely waste streams at the C&D area are identified in the planning application, specifically, Part 6 Transport Assessment, Appendix TA4 to 7 and includes (in no particular order);

- 1) “Trade (Small Vehicle)” – bulky/mixed non-hazardous commercial waste
- 2) “Trade (Artic)” – bulky/mixed non-hazardous municipal and commercial waste
- 3) “Alconbury WTS Bulky” – bulky/mixed municipal waste
- 4) “March WTS Bulky” – same as (3)
- 5) “Other Bulky” – same as (3)
- 6) “Inert RCV (Skips/Small Vehicles)” – inert municipal and commercial waste

Whilst these waste streams should be source separated in the first instance, experience tells the operator that (1) to (6) may contain waste electrical items and tyres, therefore the applicant has developed contingency arrangements at C&D to safely store such items, prior to their export offsite to a suitability licenced facility.

### Noise

WSP were commissioned by Cambridgeshire County Council to carry out a review of Chapter 7.0 Noise of the ES. A number of points were raised by the review, specifically with respect to the use of assessment criteria applied and assumptions used. The points raised have been clarified within a Technical Note provided at **Appendix [G] TN1 Noise Clarifications**.

Separately, WSP questioned the representative background noise levels used within the noise assessment. It is the applicants view that the levels suggested by WSP are conservative, rather than representative, however the applicant has reviewed the

proposed design to identify additional mitigation measures that could be put in place to ensure that the rating noise level determined in accordance with BS4142 are equal or lower than the background levels proposed by WSP. This is considered within the Additional Environmental Information submitted to you separately.

I trust the above is self-explanatory, however please do not hesitate to contact me should you wish to discuss any points raised.

Yours sincerely



David Adams  
**Director**

cc. Tim Marks, Planning Manager, Amey

- enc. Appendix A - Water Flow Diagram  
Appendix B - Response to UKWIN comments dated February 2018  
Appendix C - Update to Statement of Community Involvement  
Appendix D - Process and Emissions Overview Document  
Appendix E - Air Quality and Emissions Q&A Document  
Appendix F - Air Quality Clarification  
Appendix G - Noise Clarifications
- Figure 1 - Fire Service Access Routes (from A10 to WWRF)  
Figure 2 - Fire Service Access Routes (around WWRF facility)  
Figure 3 - Examples of APCR and IBA Tankers  
Figure 4 - Contingency Shredder Location (tbc)