

CHAPTER 2

INTRODUCTION

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2.0 INTRODUCTION

This Environmental Statement (ES) presents the findings of an Environmental Impact Assessment (EIA) for a proposed 23 m extension to the stack of the Integrated Waste Management Facility (IWMF) on land at the former Rivenhall Airfield near Braintree in Essex.

This ES, comprising Volume 2, accompanies and should be read in conjunction with the Planning Application forms and supporting documents presented in Volume 1.

The structure, particularly the Chapter numbers within the ES, follows that established by all previous environmental assessments that have been prepared and submitted for the implemented IWMF planning permission (ESS/34/15/BTE).

The following supportive information and Environmental Statements have been prepared:

- Chapter 3 outlines: the approach to the Environmental Statement; provides an overview of the IWMFs waste recovery, recycling and treatment operations; clarifies the environmental baseline and summarises the findings of the Environmental Assessments and Statements which have been prepared to support the proposed 23 m extension to the IWMF stack;
- Chapter 8 presents the Addendum Landscape and Visual Assessment;
- Chapter 9 presents the Heritage Statement: Setting of Designated Heritage Assets;
- Chapters 11 and 15 present the Addendum Air Quality Assessment and Human Health Risk Assessment; and
- Chapter 12 presents the Addendum Noise Assessment.

In addition to the above, supportive ecological and lighting statements have been prepared to address specific issues associated with the reflective finish to the stack and are presented within Chapters 7 and 8 of this Environmental Statement.

2.1 Application for a 23 m Extension to the IWMF Stack Height

Planning Permission ESS/34/15/BTE relates to an Integrated Waste Management Facility (IWMF) on land at the former Rivenhall Airfield near Braintree in Essex. Following the first application for the IWMF's Environmental Permit, the Environment Agency (EA) issued a refusal notice on 21 December 2016, for the following reason:

"Based on the information that has been provided to us, we are not satisfied that you [Gent Fairhead & Co Limited (the Applicant)] have demonstrated that the proposals reduce emissions and their impact on the environment through the use of Best Available Techniques (BAT) and in particular that the proposed stack height is BAT"

In its report, the EA agreed with the Applicant's analysis that the IWMF, as currently permitted under planning, is unlikely to contribute to exceedances of any Environmental Standard for human health. However, whilst the implementation of planning permission ESS/34/15/BTE allows the IWMF to be constructed; the IWMF will require an approved Environmental Permit prior to commencement of operations.

Having considered the EA's detailed decision report, and its consultation responses to local Councillors and members of the public who had expressed concern about the height of the stack, a second Environmental Permit application was submitted by Gent Fairhead & Co Limited (GFC) including details for a higher stack.

On the 3 March 2017, a second (revised) Environmental Permit application was submitted to the Environment Agency. This application addressed the original consultation responses raised by local Councillors and members of the public who had expressed concern about the height of the stack.

On the 20 June 2017, the Environment Agency confirmed that it was "minded to" permit the application, and issued a Draft Environmental Permit No EPR/FP3335YU for public consultation.

In order to operate, the Rivenhall IWMF needs both planning permission from Essex County Council and an environmental permit from the Environment Agency. These are separate and distinct processes and planning permission can be granted without the environmental permit and vice versa.

The planning system addresses the acceptability of a proposed development in terms of the use of the land, location, the need for a facility, the amount of waste generated as well as wider issues, such as the visual impact. The Environmental Permitting Regulations address the design and operation of the process to prevent pollution and minimise impacts on the environment and human health.

To correspond with the revised stack height within the Draft Environmental Permit, this Full Planning Application has been prepared to extend the height of the IWMF stack by 23 m.

Planning Condition 56 of the implemented IWMF planning permission (ESS/34/15/BTE) currently limits the height of the IWMF stack and states:

Only one stack shall be erected on the site to service all elements of the IWMF. The height of the stack shall not exceed 85 m Above Ordnance Datum.

The existing planning permission established the principle of the IWMF and the stack (85m Above Ordnance Datum (AOD), 35m above existing ground levels) within the landscape at this location, and the revised stack height of 58 m above surrounding ground level (108 mAOD "Above Ordnance Datum") represents a extension in stack height of 23 m. The revised stack height is of a comparable height to that of the existing landmarks within the local landscape such as the nearby Sheepcotes Hangar mast and the network of high voltage overhead electricity pylons which are around 50 m above surrounding ground level.

In planning and environmental impact terms, the proposed modification in stack height is a single and subjective issue principally assessed in terms of landscape and visual impacts. Whilst no other changes are proposed to the design, layout or general arrangement of the IWMF, the change in stack height will require modifications to permitted planning drawings and approved details previously submitted under condition which indicate the height of the stack and general arrangement of the IWMF, namely: Conditions 2 and 14.

In addition to the extension to the IWMF's stack height a change will be made to the proposed flue gas treatment techniques used within the plant; namely, from bicarbonate to lime based treatment technologies. This change has a beneficial effect in terms of emission control and represents BAT, therefore an updated CHP Management Plan and its associated Plume Visibility Analysis will be submitted to vary the plume management proposals previously approved under Condition 17.

This Full Planning Application to extend the stack height is consistent with the details of the Draft Environmental Permit No EPR/FP3335YU issued by the Environment Agency on 20 June 2017 i.e. including for a stack height of 58 metres above surrounding ground level. If this planning application is approved, it will result in a continuation of the implemented IWMF planning

permission, allowing for an extension (or variation) to the originally permitted and conditioned stack height.

The location of the stack and proposed 23 m increase in stack height is indicated on Drawings 1-FA and SP01B.

2.2 Environmental Statements

This planning application to extend the stack height is being made to satisfy the Environment Agency's feedback regarding the proposed stack height (i.e. as stated in the Draft Environmental Permit and associated decision report dated 20 June 2017), and to address the related concerns of local Councillors and members of the public. As before, there would only be one stack, clad and completed in the reflective materials with no visible plume.

To support the Full Application to extend the IWMF's stack height by 23 m from 35 m above surrounding ground level to a revised height of 58 m above ground level, Gent Fairhead & Co Limited, has prepared the following Environmental Statements to address the change in stack height:

- The preparation of an Addendum Landscape and Visual Assessment assessing the magnitude of change and the significance of the effects arising from the height of the stack as portrayed in the montages from the original seven representative viewpoints. This includes the preparation of updated photomontages to show the proposed increase in height of the stack following construction (Year 0) from the same viewpoints used within the original assessment, and additional viewpoints suggested during the public consultation period. A Zone of Theoretical Visibility (ZTV) has also been prepared to consider the degree of change associated with the increase in stack height on its surroundings;
- An assessment of the potential impact of a change in stack height on the setting of local heritage assets comprising a Heritage Statement: Setting of Designated Heritage Assets;
- The preparation of an Addendum Air Quality Assessment that considers the changes in local air quality impacts;
- The preparation of an Addendum Human Health Risk Assessment that considers the changes in local air quality impacts; and
- The preparation of an Addendum Noise Assessment that considers the changes in the local environment associated with the increase in stack height.

2.3 Current Planning Situation

Gent Fairhead & Co Limited (GFC) originally received planning permission (ESS/37/08/BTE) for the development of the IWMF at Rivenhall Airfield on 2 March 2010 from the Secretary of State following a Public Inquiry (APP/Z1585/V/2104804).

Subsequent amendments have been approved by ECC which relate to:

- Additional wording to Condition 2 as permitted by ESS/37/08/BTE/NMA dated 25 October 2012;
- An extension of time of one year to the commencement of development under Condition 1 (ESS/41/14/BTE);

- The removal of Conditions 28 and 30 that restricted the sourcing of the IWMF's solid recovered fuel and waste paper (ESS/55/14/BTE); and
- A variation to the layout of the IWMF which was not substantially different to that previously approved, with no changes to the types of waste to be handled at the IWMF or maximum vehicle numbers, but with a change to the integrated internal recovery, recycling and treatment capacities (ESS/34/15/BTE).

In parallel with ESS/34/15/BTE, Gent Fairhead & Co Limited submitted all necessary pre-development details required under conditions. Planning permission ESS/34/15/BTE was granted on the 26 February 2016 and the development has been implemented.

Essex County Council's decision letter, planning permission and letter confirming that material operations had taken place to implement the IWMF development before 2 March 2016 are presented within Appendix 2A.

This Full Planning Application to extend the stack height will result in a continuation of the implemented IWMF planning permission, which will allow an extension (or variation) to the originally permitted and conditioned stack height.

2.4 The Essex County Replacement Waste Local Plan

The Rivenhall IWMF is allocated as a "Strategic Site" in the emerging Essex Replacement Waste Local Plan (RWLP). This RWLP is currently in an advanced stage of the drafting and consultation processes. Following public hearings in September and October 2016, a final round of public consultation with regard to "modifications only" was completed on 16 February 2017. The Inspector has issued her Examination Report which was agreed by Essex County Council's Cabinet on 20 June 2017. Given the timing of full Council meetings of the two Authorities, a decision regarding full adoption of the Waste Local Plan should occur by Autumn 2017. However, the current draft RWLP with modifications can be considered to have considerable weight in planning terms.

Following modifications to the RWLP, the Rivenhall IWMF is the only named Strategic Site under Policy 3.1 "For residual non-hazardous waste management" at the only energy-from-waste CHP facility named in the Plan, with a capacity of 595,000 tonnes per annum. In Appendix 1 (4.21) of the RWLP Schedule of Modifications January 2017 "The Waste Challenge at a Glance" there is an update with regard to the County Council's own management of municipal waste in Essex which reads:

"At present, the Waste Disposal Authority is considering the long term management options for the stabilized residual waste output of the Tovi Eco Park Facility. In 2016, the annual 200,000 tonnes output from this facility was exported from the Plan area. In line with the Plan's Strategy for the Plan area to become self-sufficient with regard to its waste management needs where practicable, the Plan includes a site allocation which has capacity to potentially manage this residual waste in the Plan area in the longer term."

The Rivenhall IWMF is the only site in the RWLP with this capability and capacity and this highlights how critical the IWMF will be in supporting Essex to ensure that it meets its objective of self-sufficiency in the County.

2.5 Description of Development

The description of the development has been consistent since the original permission by the Secretary of State in 2010.

The description of development is as follows:

"An Integrated Waste Management Facility comprising: Anaerobic Digestion Plant treating mixed organic waste, producing biogas converted to electricity through biogas generators; Materials Recovery Facility for mixed dry recyclable waste to recover materials e.g. paper, plastic, metals; Mechanical Biological Treatment facility for the treatment of residual municipal and residual commercial and industrial wastes to produce a solid recovered fuel; De-Inking and Pulping Paper Recycling Facility to reclaim paper; Combined Heat and Power Plant (CHP) utilising solid recovered fuel to produce electricity, heat and steam; extraction of minerals to enable buildings to be partially sunken below ground level within the resulting void; visitor/education centre; extension to existing access road; provision of offices and vehicle parking; and associated engineering works and storage tanks, at Rivenhall Airfield, Coggeshall Road (A120) Braintree"

2.6 Draft Environmental Permit EPR/FP3335YU/A001

On the 3 March 2017 a second (revised) Environmental Permit application was submitted to the Environment Agency on GFC's behalf by Fichtner Consulting Engineers Limited for the Rivenhall Integrated Waste Management Facility. This second (revised) Environmental Permit application addressed the original consultation responses raised by local Councillors and members of the public who had expressed concern about the height of the stack.

On the 20 June 2017, the Environment Agency confirmed that it was "minded to" permit the application and issued for public consultation a single Draft Environmental Permit combining all waste management operations within the IWMF (the Draft Environmental Permit Number is EPR/FP3335YU/A001).

The final approved details of the Environmental Permit submissions demonstrate that the IWMF embodies Best Available Techniques (BAT) to prevent, and where this is not practicable, to reduce emissions and the impact on the environment as a whole to acceptable standards. The submitted design and the air quality impact modelling and other associated assessments all relate to a revised stack height of 58 metres above surrounding ground level (108mAOD).

Stakeholder engagement events for the Environmental Permit Application were held by the Environment Agency on the 20 and 31 March 2017 at Silver End and Coggeshall; and, a further stakeholder event is planned for the 30 June 2017 at Coggeshall, following the Environment Agency's "minded to" permit decision. The public consultation on the Draft Environmental Permit will run from 20 June to 18 July 2017 after which the Environment Agency will issue its final decision and, if appropriate, the approved Environmental Permit.

2.7 Public Involvement Plan

In accordance with the Third Schedule of the Section 106 Agreement, the IWMF Site Liaison Group has already been set up to give local residents and interested parties an opportunity to discuss any matters arising from the planning and future operations of the proposed IWMF. So far the Group has met four times; in October 2014, January 2015, September 2015 and May 2016; in addition, email updates have been offered in December 2016, January 2017, February 2017, March 2017 and June 2017. The Group comprises representatives of Essex County Council,

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Braintree District Council, the Environment Agency, Rivenhall, Silver End, Bradwell, Coggeshall, Kelvedon and Feering Parish Councils, and the local Community Group.

In preparing the application to extend the IWMF stack height, GFC has continued to engage with the IWMF Site Liaison Group to disseminate details associated with the proposed extension in stack height.

All information associated with the IWMF's planning permission(s) and Draft Environmental Permit is publicly available on the following website: <http://wrren.co.uk/>

The website was established in 2014 and has contained all documents relating to the planning applications and planning permissions that have been issued in support of the IWMF. The website has been set up to ensure that if anyone inserts into a Google search engine: "Rivenhall Airfield IWMF" or "Rivenhall Airfield waste management" the <http://wrren.co.uk/> will be found.

DRAWINGS

Drawing 1-FA Landownership & Site Plan

Drawing 1-SP01B Planning

APPENDIX 2A

Planning Permission ESS/34/15/BTE