

Our Ref: SUEZ/DRRP/01

**Permitting and Support Centre** Pre-application Service Quadrant 2 99 Parkway Avenue Parkway Business Park Sheffield **S9 4WF** 

18 May 2023

Dear Sir and Madam

### **EPR/BB3609KA - DARWEN RESOURCE RECOVERY PARK**

#### REQUEST FOR ENHANCED PRE-APPLICATION ADVICE

This letter is provided in connection with a request for enhanced pre-application advice for the above site. In the following sections we provide the background, a brief description of the proposed activities which SUEZ are seeking to undertake at the site and the topics that we would like to address as part of our request.

#### **Background**

#### **Current Activities**

SUEZ currently hold a bespoke environmental permit at the site (reference EPR/BB3609KA) which allows the operation of the following activities:-

- Material Recycling Facility (Activity Reference A1);
- Plastics Physical Treatment Facility (Activity Reference A2); •
- Glass Bulking Facility (Activity Reference A3);
- Household, Commercial and Industrial (HCI) Waste Transfer Station Facility (Activity Reference A4)

At present, SUEZ operate a HCI waste transfer station at the site and a plan of the current site layout is enclosed with this letter for ease of reference. The main transfer building is used to receive general municipal/residual black bag and bulky waste prior to treatment via shredding. The shredding process is undertaken within the building to produce Refuse Derived Fuel (RDF) prior to despatch off site to a permitted Energy from Waste (EfW) facility. The building is also used for the bulking of cardboard waste prior to transfer off site for recovery or disposal.

There are external bays located to the west of the main transfer station building which are used for the bulking of road sweepings, wood, hardcore/rubble, dry mixed recyclables and green waste.

Document prepared on behalf of Tetra Tech Limited. Registered in England number: 01959704

In addition to the above, there are two small buildings located to the south of the external bays which are used for the storage, manual sorting and transfer of source segregated, post-consumer recyclable materials.

#### **Proposed Activities**

SUEZ are seeking to vary the environmental permit to allow the operation of a new Anaerobic Digestion (AD) Facility. The proposed AD process will comprise the operation of a Combined Heat and Power (CHP) engine which will have a capacity of more than 1 megawatt thermal (MWth) and less than 50MWth. As such, the CHP engine will be subject to the Medium Combustion Plant Directive (MCPD) and therefore will comprise a MCP with a specified generator (SG).

To facilitate the operation of the AD facility, SUEZ are seeking to demolish the majority of the existing buildings and site infrastructure and redevelop the whole site. An indicative layout of the site is enclosed with this letter for your consideration.

In addition to the AD Facility, SUEZ intend to operate a waste transfer station at the site which will comprise a similar operation to the current waste activities. Further details of the proposal are provided in the following section.

#### **Overview - Anaerobic Digestion**

The AD facility will be designed to treat up to 100,000 tonnes of food waste per annum and will comprise six general areas; reception, separation, anaerobic digestion, liquor treatment, biogas handling and odour control. The following section provides an indicative description of the proposed AD process.

#### **Process Description**

Waste which is delivered to the AD facility would be tipped into the reception area pit will comprise a walking floor and screw conveyor that will push the waste into a fixed shredder and then pass into the waste separation stage. The separation process will be undertaken within the main processing area of the main AD plant and will comprise the use of equipment to separate organic material (for AD) from unwanted packaging and contamination. Packaging and contaminants would be screened out and discharged to skips where they would be bulked up and sent for treatment off site.

The residual organic material would be conveyed to a waste dissolver which will liquify the material and create a slurry which is pumped into the hydrolysis buffer tanks. The tanks act as a buffer between the intermittently working reception and processing halls and the continuously operating AD plant.

Slurry is then pumped from the hydrolysis buffer tank to the anaerobic digesters. Five anaerobic digester tanks would convert organic material to biogas (methane and carbon dioxide) by the fermentation of organic material in the absence of oxygen. The retention time of the digester is up to 60 days to maximise the biogas production and biogas is collected within the roof space, which will mainly be processed by the CHP engines to generate heat and electricity that would be used by the AD plant. Once the parasitic load has been met, any excess biogas will be processed by a gas upgrading plant to National Gas Grid criteria and injected into the gas grid. Alternatively, excess biogas will be processed by the CHP engines to generate electricity that will be exported to the National Grid.

Digested slurry would be displaced by gravity overflow from the digester to the pasteuriser tanks within which the material 'digestate' is heated to 70°C for a minimum 1 hour before being pumped into the post digestion buffer tank.

The material left from the process (digestate) will still be in slurry form and can be used as a fertiliser, compost or soil improver. At this stage, SUEZ are considering the potential options to process the digestate. The main process is to process the digestate slurry through a centrifuge where solids are dewatered to a dry solid concentration of

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approximately 25%. The centrifuges will be located within the main AD process building. Digested material falls by gravity into the digestate 'cake' storage bay where it can be periodically collected.

The cake storage area is designed to hold 2 weeks' worth of digested cake and is connected to the odour control system for direct air extraction. The facility would provide circa 40,000 tonnes per annum of digested cake which would be spread to agricultural land as a soil enhancer.

Liquor extracted during the dewatering process would gravitate to the Sequence Batch Reactor (SBR) feed tank and then treated in the SBR to aerate the liquid fraction and recover any sludges and solids which are recirculated back to the centrifuge. The remaining liquid will be re-used in the dissolver however the process would produce excess liquid which may be discharged to sewer. Alternatively, separated liquor from AD processes has the potential to contain significant fertiliser value. As such, SUEZ are considering the potential to utilise the liquor as a soil enhancer.

Finally, SUEZ are considering the potential to utilise the digestate in a slurry form and therefore would not be processed by the centrifuge.

It is anticipated that the AD facility will operate 24 hours a day, however, the reception of waste will be restricted between 07:00 – 19:00 Monday to Friday and between 9:00 to 17:00 Saturday, Sunday, Bank Holidays and Public Holidays

#### **Additional Waste Activities**

In addition to the AD Facility, there will be two new buildings that will be developed at the site. The first building will comprise an enclosed building and will be used to operate a similar process that's undertaken as part of the current waste transfer station. General municipal/residual black bag waste will be stored in a designated area within the building prior to treatment via shredding to produce a RDF like product. In addition, SUEZ are considering the potential to use the shredder to process bulky waste including upholstered domestic seating containing POPs.

The second building will comprise a canopy building and will be used for bulking up waste materials such as wood, hardcore, green waste and road sweepings. The combined throughput for both buildings will be 150,000 tonnes per annum.

The operation of these waste activities will be undertaken in accordance with the hours that are stipulated under the existing planning permissions which are as follows:-

- Waste processing: 06:00 23:00 Monday to Sunday
- Waste Reception: 07.00 19:00 Monday to Saturday
- Waste Reception: 07:00 13:00 Sundays and Bank Holidays

#### **Environmental Permit Application**

The proposal will require an application to include the operation of the new AD plant. Based on the current design, the proposed AD process will comprise the following a Schedule 1 activity under the Environmental Permitting (England and Wales) Regulations 2016 (as amended):-

Section 5.4 A(1)(b)(i) - Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity
exceeding 75 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion)
involving biological treatment.



Subsequently, this proposal will change the nature of the facility from a waste operations to a waste installation. The associated CHP engine will have a capacity more than 1 Megawatt thermal input (MWth) and less than 50MWth. As such, the CHP engine will be subject to the Medium Combustion Plant Directive (MCPD) and therefore will comprise a MCP with a specified generator (SG) which will also need to be incorporated into the environmental permit.

SUEZ intend to operate a waste transfer station which is already permitted at the site and will comprise a similar operation to the current waste activities. The permitted glass bulking facility is currently not operational as a separate, distinct activity and would be incorporated into the HCI Waste Transfer Station through variation to the permit. The activity and waste codes which are accepted through the glass bulking activity are currently permitted within the HCL Waste Transfer Station and as such this activity is unnecessary.

Furthermore, there is no intention to operate the Plastics Physical Treatment Facility at the site. Subsequently, SUEZ propose that the Plastics Physical Treatment Facility and the Glass Bulking Facility activities will be removed from the environmental permit.

In terms of the Material Recycling Facility, there is no intention to operate this type of facility and therefore has not been included as part of the new site layout. Nevertheless, SUEZ would like to keep this activity within the environmental permit for future proofing purposes.

With regards to the environmental permit application, we have outlined a number of points which SUEZ seek enhanced advice from the EA to ensure that the most appropriate methodology is undertaken to minimise any delays during the duly making and determination process.

### **Topics to Address under Pre-application Advice**

#### 1. Scope of Environmental Permit Application

Last year, a request for pre-application advice was submitted to the EA (reference EPR/TP3405PT/V003) for SUEZ's Ellington Road facility which involved the removal of an IVC activity and addition of an AD activity. A copy of the EA's advice letter is enclosed with this letter for ease of reference.

According to the advice letter, the EA advised that a single application can be applied for to facilitate the proposal at Ellington Road.

To that end, we propose to adopt a similar approach for Darwen whereby a single application is prepared to facilitate the addition of the AD facility and MCP/SG and the removal of the Plastics Physical Treatment Facility and Glass Bulking Facility. As part of the application, we propose to prepare the following documents: -

**Table 1: Proposed Application Documents** 

Document	Description
Application Forms	Completion of the required application forms.
Non-Technical Summary	Summary of the application and documents submitted to accompany the application.
Operating Techniques	Preparation of an Operating Techniques document that details how the site will operate.
Best Available Techniques (BAT) Assessment	Assessment of the AD plant against the BAT Conclusion for Waste Treatment and the Biological waste treatment: appropriate measures for permitted facilities. In addition, the document will take into consideration with how the proposed transfer station will meet the requirements of the EA's 'Nonhazardous and inert waste: appropriate measures for permitted facilities' guidance.

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Environmental Risk Assessment	Preparation of a risk assessment that assesses the risk associated with the proposal and sets out how risks will be managed to an acceptable level.
Air Quality Assessment	Preparation of an air quality assessment in line with EA guidance.
Odour Management Plan	Preparation of an Odour Management in accordance with EA guidance. This document will solely focus on activities associated with the AD plant.
Pest Management Plan	Preparation of a Pest Management Plan in accordance with EA guidance.
Dust Management Plan	Preparation of a Dust Management Plan in accordance with the EA's 'Control and monitor emissions for your environmental permit' guidance and the 'Dust and Emission Management Plan (DEMP)' template.
Fire Prevention Plan	Preparation of a revised fire prevention plan in accordance with the EA's Fire prevention plans: environmental permits
Bioaerosol Risk Assessment and Management Plan	Preparation of a bioaerosol risk assessment in accordance with EA guidance.
Noise Impact Assessment & Management Plan	Preparation of a noise impact assessment in accordance with EA guidance which stipulates BS4142 and the preparation of a noise management plan in accordance with the EA's 'Noise and vibration management: environmental permits' guidance.

#### 2. Additional Documents

In addition to the documents listed above, consideration has been given to the preparation of a cumulative odour/ammonia/H2S modelling assessment.

According to the EA's advice letter for Ellington Road, the EA advised that a cumulative odour/ammonia/H2S Assessment is only applicable to permit applications for intensive farming and therefore would not be required to support the permit variation at Ellington Road.

To that end, we seek confirmation on whether a cumulative odour/ammonia/H2S Assessment will not be required to support the proposal at Darwen Resource Recovery Park.

## 3. Scope of Fire Prevention Plan

According to Table S1.2 of the environmental permit, the site benefits from an approved Fire Prevention Plan (FPP) in connection with the waste transfer station. Given that the proposal involves changes to the site layout, it's considered that the FPP will need to be updated to reflect the new layout.

In terms of the proposed AD plant, the EA's 'Fire prevention plans: environmental permits' guidance indicates that a FPP is only required for biowaste treatment that comprises open windrow, in-vessel composting or dry anaerobic digestion. As noted above, the proposed AD process will comprise a wet process and therefore the activity does not fall within the scope of the guidance. As such, it's considered that the EA's FPP guidance does not apply to the proposed AD facility and this activity does not need to be included in the revised FPP.

#### 4. Treatment of upholstered domestic seating containing POPs

As mentioned above, SUEZ are considering the potential to utilise the proposed shredder to process upholstered domestic seating containing POPs. In accordance with the EA's Regulatory Position Statement (RPS) 264, it is understood that an appropriate abatement system would need to be installed to capture and abate emissions that may be generated from the shredding of waste containing POPs. At this stage, SUEZ are uncertain on what type of abatement system they would install at the site. However, if the system involves an emission point to air, the EA's 'Air emissions risk assessment for your environmental permit' indicates that the emission point would need to be included as part of the air quality assessment.

To that end, we seek to confirm that this understanding is correct. In addition, the aforementioned guidance does not indicate the most appropriate methodology to use when assessing emission points associated with abatement

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systems for POPs. As such, we seek confirmation on the most appropriate methodology to use as part of the air quality assessment.

#### 5. Application charge to remove Plastics Physical Treatment Facility and Glass Bulking Facility

According to the EA's 'Environmental permits: when and how you are charged', Section 3.10 indicates that if the proposal involves the removal of an activity where operations have not commenced, a minor variation will need to be applied for and the lower of £770 or the minor variation charge must be paid to the EA. The Plastics Physical Treatment Facility and Glass Bulking Facility has never taken place at the site which can be confirmed through site records and CAR Forms. As such, we seek confirmation that the charge to remove these activities is £770.

#### **Summary of Pre-application Request**

To summarise, we request the following to be agreed with yourselves: -

- 1. We seek confirmation that the proposed scope of the environmental permit application (Table 1) is correct and that a Cumulative Odour/Ammonia/H2S Modelling Assessment will not be required.
- 2. We seek confirmation that the proposed AD facility does not need to be included in the revised FPP.
- 3. We seek confirmation on whether the air quality assessment would need to consider any emission points associated with a POPs abatement system. In addition, we seek confirmation on the most appropriate methodology to use within the air quality assessment.
- 4. We seek confirmation of the application charge to remove the Plastics Physical Treatment and Glass Bulking Facility from the environmental permit.
- 5. We seek confirmation that it is acceptable to remove the Glass Bulking Facility as a separate activity as this is currently covered under the HCI Waste Transfer Station.
- 6. We seek confirmation if it is possible to retain the MRF activity within the permit although its location is not currently on the site plan. The future operation of the MRF would be subject to an improvement condition.
- 7. We seek confirmation that the scope of the Odour Management Plan is restricted to the AD facility as the other operations are currently controlled through an existing, approved Odour Management Plan.

We trust that the above is clear and will be considered in a timely manner. However, should you wish to discuss this in further detail we would be happy to facilitate a teleconference at your earliest convenience and if this is deemed necessary, please feel free to contact the undersigned.

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Yours sincerely

# Michaela Fry

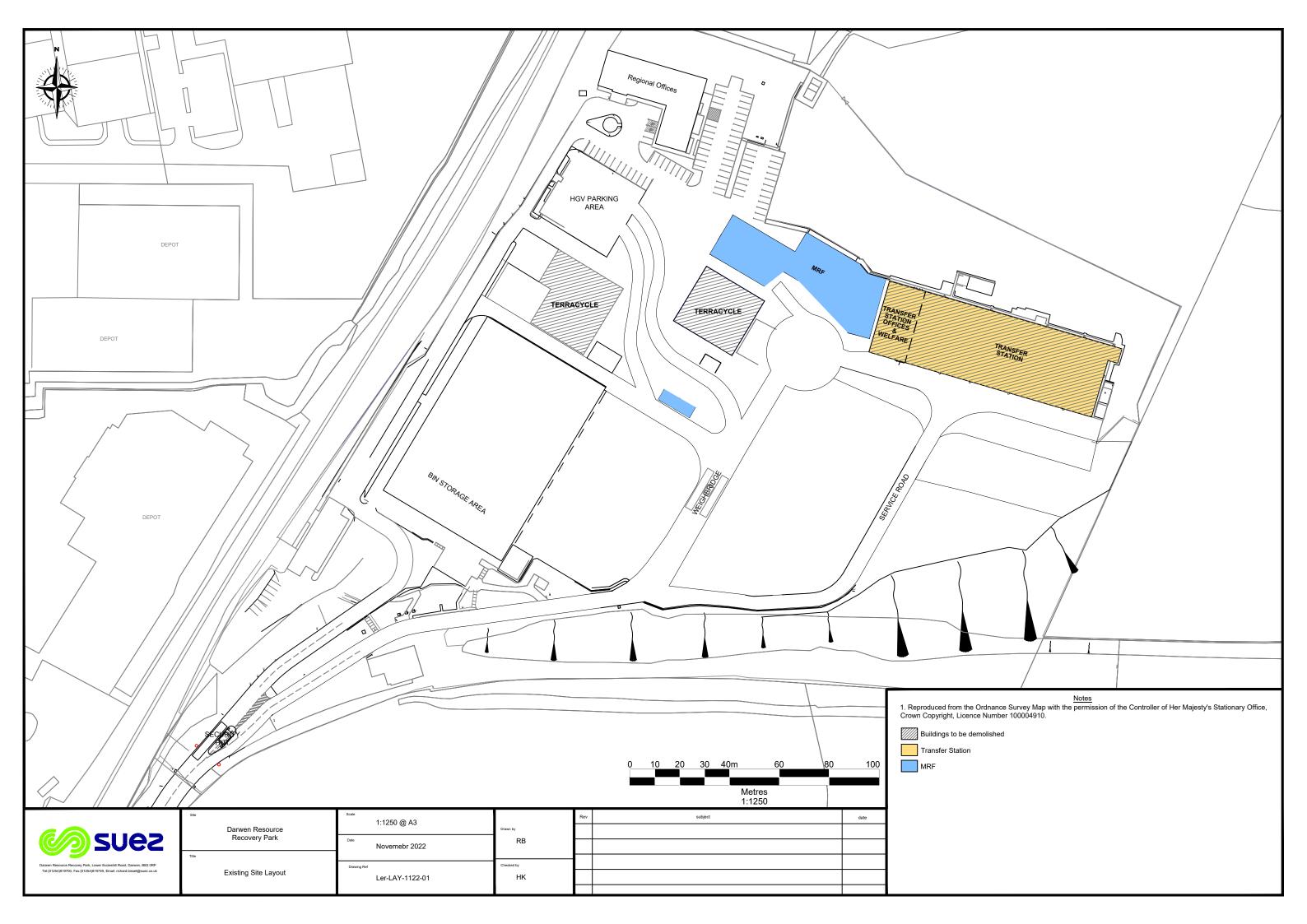
**Principal Consultant** 

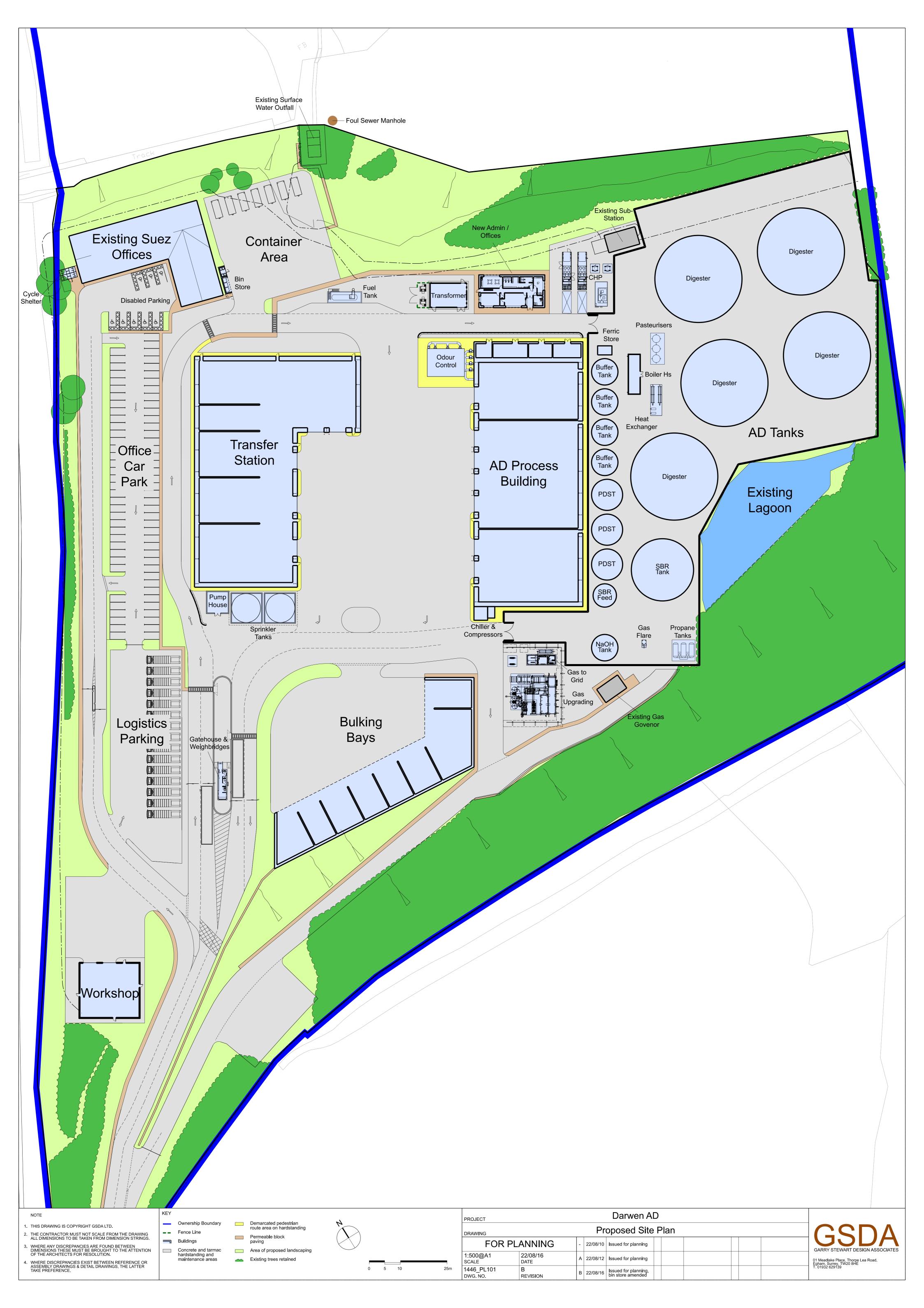
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#### Enc.

- Copy of current site layout
- Copy of indicative site layout plan
- Copy of EA's pre-application advice letter for SUEZ's Ellington Road









Alice Shaw
On behalf of SUEZ Recycling and Recovery UK Ltd

Our reference: EPR/UP3494ZL/V007

Date: 14/12/2022

## Pre application advice

Dear Ms Shaw,

# Ellington Road Composting Facility EPR/UP3494ZL/V007

Thank you for your pre-application enquiry on 08/11/2022, with additional information received on 09/12/2022 and for talking to me earlier today.

As discussed, the proposed Anaerobic Digestion (AD) facility is not eligible for the Standard Rules permit SR2021 No.6 due to the waste water treatment activity putting it outside the scope of a Standard Rules set. Standard Rules permits do not allow for the addition of Directly Associated Activities (DAA's) and there also cannot be a technical link to any other activities carried out on site, meaning the waste water treatment cannot be added to the permit as a DAA to the AD facility.

The current A1 In-Vessel Composting (IVC) activity can be removed from the permit and an AD activity (under EPR Regulations (2016) Section 5.4 A(1)(b)(i) – Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity of 100 tonnes per day involving biological treatment) can be added under one permit variation application. You will need to apply for a substantial variation due to the level of assessment and consultation requirements for AD activities. You will need to submit the application forms as listed below:

Part A - Application for an environmental permit: part A about you - GOV.UK (www.gov.uk)

Part C2 - Application for an environmental permit: part C2 varying a bespoke permit - GOV.UK (www.gov.uk)

Part C3 - Application for an environmental permit: part C3 vary a bespoke installation permit - GOV.UK (www.gov.uk)

Part F - Application for an environmental permit (charges and declarations): part F1 - GOV.UK (www.gov.uk)

Please also complete Appendix A of Part C2.5 for the Medium Combustion Plant. You do not need to complete the whole form.

Application for an environmental permit: part C2.5 vary to add a new MCP/SG or change an existing MCP or SG permit - GOV.UK (www.gov.uk)

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incident hotline 0800 80 70 60



In addition, as you have identified, you will need to submit a number of documents with your application. We agree with the list you have provided with your pre-application letter on 09/12/2022 (Table 1, Page 4) apart from you **do not** need to provide cumulative odour/ammonia/H2S modelling assessment. In addition, you will need to submit a site plan. As the AD facility will be part of a larger permitted site, it will ne helpful to have two plans – one of the whole permitted site showing the AD facility within the installation boundary, and a second plan showing more detail of the AD facility showing buildings and emission points.

With regards to the other assessments mentioned in your pre-application letter:

- Dust Management Plan and Bioaerosols Risk Assessment and Management Plan providing that there is no outside storage of waste, we do not consider that you need to submit these plans with your application.
- Noise impact assessment and/or management plan I have carried out a basic noise screening assessment and we agree that you do not need to submit a noise impact assessment and/or management plan.
- Fire Prevention Plan (FPP) based on the information you have supplied, we agree that you do not need to provide an FPP with your application.

As discussed, due to the proposed CHP, we will need to carry out a habitats assessment for air emissions due to the presence of a Special Protection Area (SPA) and Special Site of Scientific Interest (SSSI) within the screening distance.

## **Application Charge**

A Substantial Variation to a Section 5.4 (b)(i) will cost £12,797 according to Table 1.16.2.1 of our Charging Scheme Environmental permits and abstraction licences: tables of charges - GOV.UK (www.gov.uk).

In addition there will be a charge of £1,246 for assessing an Odour Management Plan and a charge of £1,241 for assessing a Pest Management Plan. There will also be a charge of £779 for carrying out a habitats assessment. Please see Table 1.19 of our Charging Scheme.

Therefore your total application charge will be £16,063.

#### **Declaration**

Please ensure the Declaration section is completed by each "relevant person".

- For an application from an individual, a relevant person is the person to be named on the permit.
- For an application from more than one individual, each person who is applying for their name to be on the permit must complete the declaration you will have to

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- print a separate copy of the declaration page for each additional individual to complete.
- In the case of a company, a relevant person must be an active director/company secretary as listed on Companies House – <a href="https://beta.companieshouse.gov.uk/">https://beta.companieshouse.gov.uk/</a>
- For a charity, a relevant person is a key post holder, i.e., chair, chief executive, director or trustee.

If you submit an environmental permit application then please quote this pre-application reference number: EPR/UP3494ZL/V007

psc@environment-agency.gov.uk

Or by post to:

Environment Agency, Permitting Support Centre, Quadrant 2, 99 Parkway Avenue, Sheffield, S9 4WF

# **Current application timescales**

Our current queues are large and we are taking longer than usual to allocate work for initial assessment, known as duly making. The table below shows our estimated queue times by application type. Please note, this is based on our average times and some applications may be picked up before or after the timescales listed below.

Application type	Estimated time to allocation
New standard rules	14-18 weeks
New bespoke	16-20 weeks
Admin variation	2-4 weeks
Minor variation	13-17 weeks
Normal variation	17-19 weeks
Substantial variation	14-18 weeks
Transfer	7-11 weeks
Surrender	17-21 weeks

## **Disclaimer**

The advice given is based on the information you have provided, and does not constitute a formal response or decision of the Environment Agency with regard to future permit applications. Any views or opinions expressed are without prejudice to the Environment Agency's formal consideration of any application. Please note that any application is subject to duly making and then full technical checks during determination, and additional

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information may be required based on your detailed submission and site specific requirements and the advice given is to address the specific pre-application request.

This advice covers installations only. Other permissions from the Environment Agency and/or other bodies may be required for associated or other activities.

# This pre-application request is now closed.

Further enquiries resulting from this response must be logged as a new request using the online form:

https://www.gov.uk/government/publications/environmental-permit-pre-application-advice-form

Our basic pre-application service is free and is limited to the information detailed on section 2 of the <u>Environmental permitting charges guidance</u> on gov.uk.

If you need more extensive or technical pre-application advice, you can ask for our enhanced pre-application service. The enhanced pre-application advice is charged at £100 per hour plus VAT. You will need to complete and submit a new online pre-application request to request enhanced pre-application advice.

If you have any questions please find my contact details below.

Yours sincerely,

Laura Gosling
Permitting Officer

07767 311805

Laura.gosling@environment-agency.gov.uk

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03459 88 11 88