

DOCUMENT 7

INSTALLATION PERMIT APPLICATION - ADDENDUM #1

ROADWAYS WOODSIDE DEPOT



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| Revision: | 1.0 | Approved by: | James Bailey |
| Date Revised: | June 2021 | Authored by: | Stuart Austin |

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DRAWINGS

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APPENDICES

Appendix 1 - Updated H1 Risk Assessment

Appendix 3 - Updated Air Quality Assessment

Appendix 5 - Updated Dust Management Plan

Appendix 6 - Updated Raw Materials & Waste Minimisation Statement

Appendix 9 & 10 - Updated Waste Codes

1.0 INTRODUCTION

- 1.0.1 An Environmental Permit application (ref. EPR/ZP3992EW/V002) was submitted by Hailsham Roadway Construction Company Ltd (Roadways) to the Environment Agency (EA) on 12th February 2021 to vary the existing standard rules Permit at their Woodside Depot facility to a bespoke installation Permit.
- 1.0.2 Following correspondence with the EA at the Duly Making stage (dated 29th April and 24th May 2021 (EA officer K. Dunmore.) Roadways have made amendments and provided additional information to the application documents. These further details broadly relate to:
- Waste Codes and Non-Hazardous Treatment
 - Surface Water Drainage
 - Brownings (on-site HMO residential accommodation)
 - Diesel Generator
- 1.0.3 The scope of this additional information has been agreed in correspondence with the EA to satisfy the duly making requirements. Further information on these aspects of the application can be provided at the assessment stage (if required). This Addendum is supported by a number of updated Technical Appendices (these appendices retain the same numbering references as the first submission and should directly replace the originals). Any information contained in this addendum (or the updated appendices) that conflicts with any other previously submitted application documents takes precedence.

2.0 WASTE CODES & WASTE TREATMENT

Waste Codes

- 2.0.1 The list of waste codes (hazardous and non-hazardous) that Roadways are applying for to accept at Woodside Depot for storage, treatment and/or transfer has been reviewed. The changes are principally related to support amendments to the surface water drainage scheme detailed in Section 3.0.
- 2.0.2 The updated list of Waste Codes are presented in Appendix 9 & 10. These are split into hazardous, non-hazardous (non-specified), and non-hazardous (specified). The table for each also describes the transfer / treatment and recycled product options for each waste code. The list of non-hazardous waste codes has been reduced from 46 to 24 in total, comprising 6 non-hazardous (non-specified) and 18 non-hazardous (specified) waste codes.

Treatment of Non-Hazardous Waste (Batching)

- 2.0.3 The batching plant is currently Permitted by Wealden District Council. However, this is because waste is not currently utilised in the production of hydraulically bound material (HBM) (only post-waste Type 1 and Type 4 material is used). The batching plant needs to be covered by the Installation Permit as going forward Roadways would like, when required, to utilise the following waste materials: road planings (hazardous and non-hazardous), waste clays (non-hazardous) and crushed concrete, bricks etc (non-hazardous) in place of Type 1 and Type 4 material.

Cold Mix Process

- 2.0.4 The cold mix process for hazardous asphalt waste containing coal tar (and non-hazardous (non-specified) waste) is on an entirely sealed system and includes the following stages:
1. Waste will be stored on a concrete pad with sealed drainage.
 2. Waste will be crushed and screened on one of the two concrete pads with sealed drainage.
 3. Waste will be transported to the batching plant pad.
 4. The batching plant pad and all associated loading bays and output areas are impermeable and drain to the sealed system.
 5. Waste is deposited in one of the loading bays around the batching plant.
 6. Waste is loaded by excavator into the feed hopper of the batching plant.
 7. The plant works automatically to feed waste into the enclosed mixer box.

8. In the mixer box binders (typically cementitious materials or cold bitumen) and water are added. The mixer box is enclosed so waste or other materials cannot escape.
9. After mixing the finished material is fed out using a conveyor belt straight into a lorry or onto the batching plant pad (impermeable with sealed drainage).
10. If material has been dispensed onto the batching plant pad it is loaded by a mechanical shovel against a push wall into lorries.
11. The batching plant and the surrounding pad always remain connected to the sealed drainage, even if only non-waste materials or non-hazardous (specified) waste is being processed. Rainwater from this area also drains to the sealed system along with any washdown water.

Raw Materials

- 2.0.5 For clarity and confirmation an updated Raw Materials & Waste Minimisation Statement has been provided (Appendix 6) to include for the encapsulation of AWCCT **and** the proposed stabilisation of non-hazardous soils. The raw materials for each are:

AWCCT Encapsulation

- Bitumen
- Ordinary Portland Cement
- Lime
- GGBS

Soils Stabilisation

- Ordinary Portland Cement
- Lime
- GGBS

- 2.0.6 The data sheets for all products have already been submitted.

3.0 SURFACE WATER DRAINAGE

3.0.1 Roadways have updated the surface water drainage scheme (as shown on Drawing No. 4864-01 (1 OF 3 / 2 OF 3 / 3 OF 3)). The drainage scheme now comprises a sealed system, with separate concrete pads for the storage and treatment of hazardous wastes and non-hazardous (non-specified) wastes, and a treated discharge system for those areas of the site used for the storage and treatment of non-hazardous (specified wastes) only and non-waste activities.

3.0.2 In summary the changes are:

- The addition of a second concrete pad which would also drain to the sealed system only.
- The first larger pad would be used for the storage of hazardous wastes and treatment of asphalt waste containing coal tar. The second pad would be used for the storage and treatment of non-hazardous (non-specified) wastes. The list of non-hazardous (non-specified) waste codes have been reduced to 6 no. These limited waste streams would only be stored on the concrete pad with sealed drainage.
- The other non-hazardous (specified) wastes would be stored and treated on the main yard draining to the treated surface water discharge point that includes attenuation, settlement, and filtration features for suspended solids.
- The batching plant in which hazardous asphalt waste containing coal tar and non-hazardous waste streams would be processed, and areas around it are also on the sealed drainage system (incidental surface water in this area would not drain to the discharge point).

3.0.3 When moving hazardous / non-hazardous (non-specified) wastes from their respective concrete pad to the batching plant the following method would be employed:

- Mechanical Shovel to load against the push wall to ensure material does not spill beyond the extent of the concrete pad.
- Mechanical Shovel to transport half-full buckets only to avoid spillage.
- Mechanical Shovel to place transported material directly into the batching plant loading bay (impermeable floor and part of sealed drainage system).
- Activity to be fully supervised by yard manager or designated technically competent person.
- Any spillages / accidents to be immediately cleaned-up and details recorded in site log.

4.0 BROWNING

- 4.0.1 The property Brownings which is in the ownership of Roadways sits approximately 40m to the south west of the Permit boundary. This property is to be covered to a House in Multiple Occupation (HMO) for use by Roadways staff (as approved by East Sussex County Council under the recent planning permission ref. WD/843/CM).
- 4.0.2 An updated H1 Environmental Risk Assessment (Appendix 1), updated Air Quality Assessment (Appendix 3) and updated Dust Management Plan (Appendix 5) have been submitted which now identifies Brownings as a 'residential receptor'.
- 4.0.3 The property is not located in the direction of the prevailing wind and together with the best practice management measures employed on site to prevent and mitigate dust generation the conclusions of these assessments are not altered by the inclusion of Brownings.
- 4.0.4 The Wealden District Council Environmental Health Officer (EHO) also took the control of dust and impact on residential receptors into account at the planning application stage, and raised no objection.

5.0 DIESEL GENERATOR

5.0.1 The diesel generator utilised at Woodside Depot powers the HBM (recycling) batching plant only. It does not act as a back-up power source for the entire site. As such its size (input / output) is limited.

5.0.2 Following the AMPS Technical Committee guidance (available on GOV.UK) for the '*Determination of thermal input power of an engine driven generator*' the following calculation can be applied.

$$P_{m(r)} = P_{e(r)} * 100 / \eta_A$$

Where

$P_{m(r)}$ = Rated mechanical power (kW)

$P_{e(r)}$ = Rated electrical power (kW)

η_A = Alternator efficiency (%)

Generator: Broadcrown BCRJD 150/50/60 E3A

- Rated Electrical Power = 120kW ($P_{e(r)}$)
- Alternator Efficiency = 93% (η_A)

$$120 * 100 / 93 = 129 \text{ kW } (P_{m(r)}) = \text{Rated Mechanical Power.}$$

5.0.3 Using the rated mechanical power to calculate thermal input power where there is no fuel consumption data available the following calculation can be applied.

$$P_{th} = P_{(r)} * 100 / \eta_e$$

Where

P_{th} = thermal input power

$P_{(r)}$ = rated power (mechanical)

η_e = effective efficiency

Generator: Broadcrown BCRJD 150/50/60 E3A

- Rated Mechanical Power = 129kW
- Effective Efficiency = 36

$$129 * 100 / 36 = 358.3 \text{ kW (P}_{\text{th}})$$

5.0.4 By converting kW to MW the thermal input of the generator is 0.358MWth (therefore less than 1MWth).